



NEW HAMPSHIRE COMPREHENSIVE HIV NEEDS ASSESSMENT

New Hampshire Epidemiologic Profile for HIV/AIDS Prevention and Care Planning 2013

PREPARED BY

JSI Research & Training Institute, Inc./
Community Health Institute

ON BEHALF OF

New Hampshire Department of Health and Human Services
Division of Public Health Services
Bureau of Infectious Disease Control



NH DIVISION OF
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Improving health, preventing disease, reducing costs for all
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TABLE OF CONTENTS

List of Figures and Tables	i
List of Abbreviations	ii
Executive Summary	iii
Introduction	1
Background.....	1
Methods	1
Data Sources.....	3
Section 1: HIV and AIDS Epidemiology	4
Question 1.1 What are the sociodemographic characteristics of the general population in New Hampshire?.....	4
Demographic Information	4
Socioeconomic Information.....	8
Question 1.2 What is the scope of the HIV/AIDS epidemic in New Hampshire?	11
HIV/AIDS Overview	11
HIV Infections and AIDS Diagnoses	12
HIV/AIDS Mortality.....	16
Question 1.3 What are the indicators of risk for HIV/AIDS in New Hampshire?	17
General Population.....	17
Sexually Transmitted Diseases.....	18
Men who Have Sex with Men	20
Injection Drug Use	21
Section 2: Ryan White HIV/AIDS Program	22
Question 2.1 What are the patterns of service utilization of PLWHA in New Hampshire?	22
Question 2.2 What are the number and characteristics of persons in New Hampshire who know they are HIV-positive but who are not receiving primary medical care?	24
Assessing and Addressing Unmet Need	26
Appendix A: Data Tables	28

LIST OF FIGURES AND TABLES

Figure 1: NH residents commuting to Boston eligible metro area (2011).....	4
Figure 2: NH county population density (2012).....	5
Figure 3: Region of birth, NH population (2012)	5
Figure 4: Region of birth, US population (2012)	5
Figure 5: Age group, NH and US populations (2012)	6
Figure 6: Race/ethnicity, NH and US populations (2012).....	7
Figure 7: High school-level educational attainment, NH and US adult populations, ages 25 and older (2012)	9
Figure 8: College-level educational attainment, NH and US adult populations, ages 25 and older (2012).....	9
Figure 9: Number of HIV, AIDS, and concurrent HIV/AIDS diagnoses, NH (2004-2013).....	11
Figure 10: Percentage of HIV/AIDS cases reported, by county (2004-2013).....	12
Figure 11: Percentage of HIV/AIDS cases reported by age, NH (2004-2013).....	13
Figure 12: Persons living with HIV/AIDS by age, NH (as of December 2013)	13
Figure 13: Percentage of HIV/AIDS cases reported by gender, NH (2004-2013)	13
Figure 14: Percentage of HIV/AIDS cases reported by race/ethnicity, NH (2004-2013).....	14
Figure 15: Percentage of HIV/AIDS cases reported by mode of exposure, NH (2004-2013).....	14
Figure 16: HIV/AIDS incidence by origin, NH (2004-2013)	15
Figure 17: Persons living with HIV/AIDS by origin, NH (as of December 2013).....	15
Figure 18: Foreign born persons living with HIV by race/ethnicity, NH (as of December 2013)	15
Figure 19: Non-Hispanic white by state for ME, MA, NH, and VT (2012)	16
Figure 20: Chlamydia and gonorrhea rates per 100,000, NH (2004-2013)	18
Figure 21: STI incidence by county (2004-2013).....	19
Figure 22: Among PLWHA, chlamydia, syphilis, and gonorrhea incidence cases, NH (2004-2013)	20
Figure 23: Men who have sex with men (MSM) by selected demographic characteristics, NH (2010-2014).....	20
Table 1: Data sources by section	3
Table 2: Poverty status, NH and US populations (2012).....	8
Table 3: Uninsured noninstitutionalized civilians, by age and race, NH and US populations (2012)	10
Table 4: Ever received HIV test, excluding tests done as part of blood donation, age group, NH adults ages 18 and older (2012).....	17
Table 5: Risk behavior related to HIV transmission in the past 12 months, by age group, NH adults ages 18 and older (2012).....	17
Table 6: Chlamydia, gonorrhea, and syphilis age-specific incidence rates per 100,000 by gender, NH (2013).....	18
Table 7: Chlamydia, gonorrhea, and syphilis age-specific incidence rates per 100,000 by race, NH (2013).....	19
Table 8: Comparison of characteristics of Ryan White HIV/AIDS Program clients and those of persons with HIV/AIDS reported to the HIV/ AIDS Surveillance System, NH, as of December 31 (2013)	22
Table 9: Ryan White HIV/AIDS Program (RWHAP) service units (2013).....	23
Table 10: Unmet need estimate, NH (2013).....	24
Table 11: Unmet need estimate, by demographic characteristics, NH (2013).....	25
Table A-1: NH county population (2012).....	28
Table A-2: Region of birth, NH and US populations (2012).....	28
Table A-3: Age group and gender, NH population (2012).....	28
Table A-4: Race/ethnicity, NH population (2012)	28
Table A-5: Race/ethnicity by county, NH population (2012)	29
Table A-6: Educational attainment, NH and US adult populations, ages 25 or older (2012)	30
Table A-7: Persons reported with HIV/AIDS in NH, by county (2004-2013)	30
Table A-8: Persons living with HIV/AIDS by gender in NH (as of December 2013)	30
Table A-9: Persons living with HIV/AIDS by race/ethnicity in NH (as of December 2013)	30
Table A-10: Men who have sex with men (MSM) by race/ethnicity, age group, and county, NH (2010-2014)	31
Table A-11: Illicit drug use other than marijuana in the past month, by age, NH (2011-2012)	31

LIST OF ABBREVIATIONS

ACS	American Community Survey
ADAP	AIDS Drug Assistance Program
AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral therapy
ASEC	Annual Social and Economic Supplement
BPHC	Boston Public Health Commission
BRFSS	Behavioral Risk Factor Surveillance System
CARE	Comprehensive AIDS Resources Emergency
CDC	Centers for Disease Control and Prevention
CDSS	Communicable Disease Surveillance Section
CI	Confidence interval
CY	Calendar year
EHARS	Enhanced HIV AIDS Reporting System
EMA	Eligible metropolitan area
FPL	Federal poverty level
GED	General equivalency diploma
HCBC	Home and Community Based Care
HIV	Human Immunodeficiency Virus
HRSA	Health Resources and Services Administration
IDU	Injection drug user
MSM	Men who have sex with men
NDI	National Death Index
NH	New Hampshire
NH DHHS	New Hampshire Department of Health & Human Services
NSDUH	National Surveys of Drug Use and Health
PLWA	People living with AIDS
PLWH	People living with HIV
PLWHA	People living with HIV/AIDS
RWHAP	Ryan White HIV/AIDS Program
SAMHSA	Substance Abuse and Mental Health Services Administration
SSDMF	Social Security Death Master File
STD	Sexually transmitted disease
STDMIS	Sexually Transmitted Disease Management Information System
US	United States

Executive Summary

BACKGROUND

Each year, there are approximately 50,000 new diagnoses of Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) in the United States. However, the disease burden impacts regions of the US differently. These differences arise from multiple factors including, but not limited to, population composition. This document will demonstrate the disparities among people living with HIV/AIDS (PLWHA) in NH compared to other regions of the US. This document will also highlight trends among those living, and among those more recently diagnosed, with HIV/AIDS in NH. In 2011, the highest number and rate of AIDS diagnoses was reported in the Southern region of the US with 15,855 cases annually and a diagnosis rate of 13.7 per 100,000 individuals. By comparison, in the Northeast region, where New Hampshire (NH) is located, 6,849 new cases were diagnosed annually with a diagnosis rate of 12.3 per 100,000 individuals. Since 2008, the Northeast rate has decreased, while the rate in the South remained stable.¹

ACRONYM DEFINITIONS:

- PLWH: Individuals who have been diagnosed with HIV infection, but have not received an AIDS diagnosis (as defined by CDC)
- PLWA: Individuals with HIV infection who have been diagnosed with AIDS (as defined by CDC)
- PLWHA: Individuals with HIV infection, including those with and without an AIDS diagnosis.

This summary and the corresponding epidemiological profile provide information about people living with HIV/AIDS (PLWHA) in NH and their use of HIV services funded by the Ryan White HIV/AIDS Program (RWHAP). This report was developed during 2013 and 2014 as part of the New Hampshire Department of Health and Human Services' (NH DHHS) HIV needs assessment process and covers a ten-year period from 2004 to 2013. It is important to note that, in general, surveillance data reflect the number of known and reported cases; these data do not capture the number of individuals living with HIV who are unaware of their status.

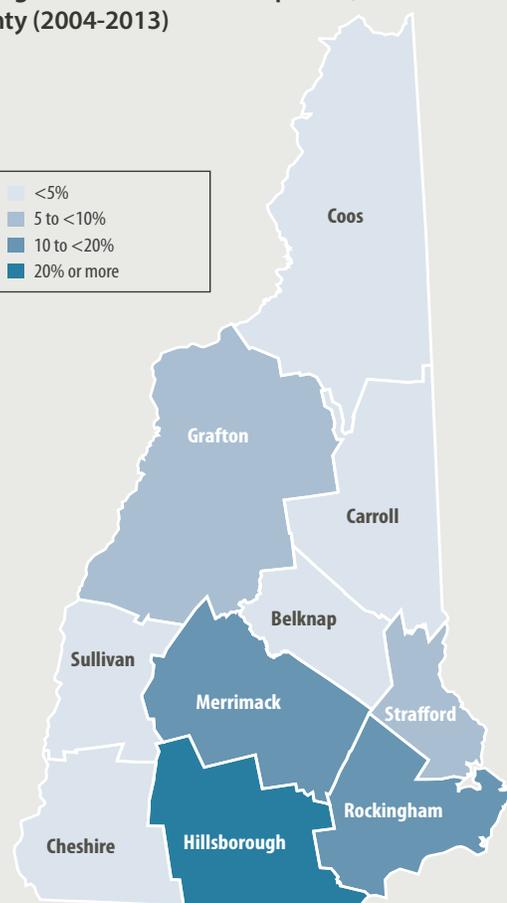
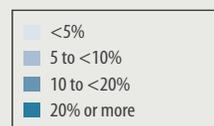
WHAT IS THE SCOPE OF THE HIV/AIDS EPIDEMIC IN NEW HAMPSHIRE?

At the end of 2013, there were 1,265 PLWHA in NH, and over half (54.5%) had been diagnosed and are living with AIDS. Over the last decade, a total of 455 new cases of HIV

and AIDS were reported in NH. Of these cases, 153 (33.6%) were HIV infections, 136 (29.9%) were AIDS diagnoses, and 166 (36.5%) were concurrent HIV infections and AIDS diagnoses. A case was considered concurrently diagnosed if an individual was reported with AIDS within one year of his/her HIV diagnosis. Overall, the number of new HIV cases reported annually has dropped by more than 50%, from 66 in 2004 to 32 in 2013. Similarly, the number of new AIDS cases reported has decreased by approximately 85% from 23 in 2004 to 3 in 2013. The number of new AIDS cases has remained under 10 since 2011. The number of new concurrent diagnoses has remained relatively stable over the decade, ranging from 11 to 25.

The map (below) illustrates the percentage of reported HIV/AIDS in NH by county. HIV cases have been reported in all counties across NH, but some areas (particularly the southern part of the state) are disproportionately affected by the epidemic. For example, while home to 30.4% of NH's population, Hillsborough County accounted for 44.2% of

Percentage of HIV/AIDS cases reported, by county (2004-2013)



Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

HIV cases and 45.4% of AIDS cases reported from 2004 to 2013. In contrast, Belknap County was home to 4.6% of NH's general population, though 2.4% of HIV cases and 2.3% of AIDS cases were reported among those living in the county. The distribution of HIV/AIDS cases across NH counties may impact the ability of some PLWHA to access HIV-related services where they reside. In areas with a higher number of HIV/AIDS cases (e.g., Hillsborough County), HIV-related services may be easier to identify and access than in those with fewer cases (e.g., Belknap County).

Most HIV (78.7%) and AIDS (76.5%) cases were among males. Similar to national trends, PLWHA in NH tended to be older, with nearly 60% of reported AIDS cases among individuals 40 years or older and nearly 25% age 50 years or older.

When looking at HIV cases, these individuals were slightly younger with nearly 50% of cases among those 40 years or older and only 20% age 50 or older. The high percentage of older PLWHA may be the result of access to effective treatment of HIV disease using antiretroviral therapy (ART), which allows PLWHA to live longer and better manage their disease.

HIV/AIDS also disproportionately affects racial/ethnic minorities in NH (see table below). While the majority of PLWHA in NH were non-Hispanic white, the proportion of cases among blacks and Hispanics exceeded their proportion of the state's population.

Most of the incident HIV/AIDS cases in NH from 2004 to 2013 were among those born in the US or a US territory (76.9% for HIV and 80.1% for AIDS). Overall, the foreign born population in NH increased slightly over the past decade, from 4.4% of the population in 2000 to 5.3% in 2012. A greater proportion of foreign born PLWHA in NH were women (48.8%) compared to the state's overall PLWHA population (23%). In addition, foreign born PLWHA tended to be younger, with 31.1% under 40 years of age compared to 21.3% of the general PLWHA population. Finally, a greater proportion of foreign born PLWHA were minorities; 56.1% identified as black and 24.4% as Hispanic, compared to 12.9% and 11.6% respectively among all PLWHA in NH.

The largest percentage (50.8%) of new HIV cases in NH was among men who have sex with men (MSM). The next most common mode of exposure was heterosexual contact at almost one-fifth (19.3%) of reported HIV cases. Another fifth of the HIV cases did not report a mode of exposure which could affect the effectiveness of outreach and prevention

Comparison of race/ethnicity among the NH population and cases of HIV/AIDS reported in NH (2004-2013)

Race/Ethnicity	NH Overall Population	NH PLWHA	NH PLWA
Non-Hispanic White	92.0%	70.3%	68.2%
Hispanic (of any race)	2.8%	9.5%	11.3%
Non-Hispanic Asian	2.2%	2.0%	1.7%
Non-Hispanic Black	1.1%	15.6%	15.2%
Multi-racial	1.4%	2.6%	3.6%

HIV EXPOSURE CATEGORIES:

- **Men who have sex with men (MSM):** men with a history of sexual contact with other men, as well as men who have had sexual contact with both men and women.
- **Heterosexual contact:** persons who had heterosexual contact with another person known to have HIV.
- **Injection drug use (IDU):** persons who received an injection of a non-prescribed drug.
- **MSM & IDU:** MSM who have also injected non-prescribed drugs.
- **Hemophilia/coagulation disorder receipt of blood transfusion, components, or tissue:** persons who received infected blood or tissue products during medical care.
- **Mother with or at risk for STD/HIV infection:** persons born to a mother with or at risk for HIV.
- **Risk not reported or identified:** persons with no reported exposure to HIV through any of the routes listed in the hierarchy of transmission categories.

services in the state. The third highest reported mode of exposure was through injection drug use (IDU) at 6.6%.

Overall, mortality from HIV/AIDS in NH has been low. The average number of deaths per year among PLWHA from 2004 to 2013 was 4.4 (with a high of 7 deaths in 2010 to a low of 2 in 2011). Among the 44 PLWA who died between 2004 and 2013, 63.6% were male; 22.7% were 50 years of age or older; 81.8% were white, 9.1% Hispanic and 4.6% black; 88.6% were born in the US; and 36.4% had an HIV exposure category of MSM, 22.7% heterosexual contact, and 20.5% IDU.

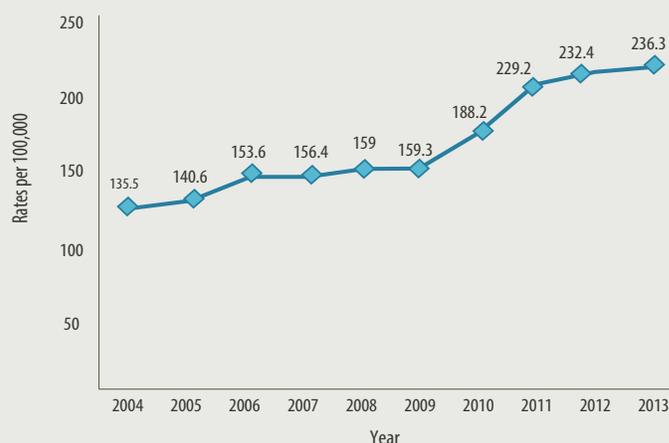
WHAT ARE THE INDICATORS OF RISK FOR HIV/AIDS IN NEW HAMPSHIRE?

The Behavioral Risk Factor Surveillance System (BRFSS) provides data about risk behavior for HIV. An estimated 3.0% of adults in NH were at risk for HIV transmission in the 12 months prior to the BRFSS 2012 survey. Being “at risk for HIV transmission” included any of the following situations: 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, or had anal sex without a condom in the past year. While the percentages were higher among younger age groups, they were still under 10% for all ages. Less than one-third (29.9%) of NH’s general population is estimated to have received an HIV test at some point in their lives, somewhat lower than the estimated 35.2% nationally in 2010. Almost half of those between 25 and 34 years old (47.5%) and between 35 and 44 years old (49.2%) have received an HIV test.

Individuals with sexually transmitted diseases (STDs) are at a higher risk for HIV infection than the general population because STDs increase a person’s susceptibility to HIV infection. PLWHA who have STDs are also more likely to transmit HIV to others because STDs increase the likelihood of shedding HIV through genital secretions. For example, men who are infected with both gonorrhea and HIV are more than twice as likely to have HIV in their genital secretions as are those who are infected only with HIV.² In NH, STDs represent the highest burden for reportable diseases.

A higher number of cases were reported for chlamydia, gonorrhea, and syphilis in the southern counties of Merrimack, Hillsborough, and Rockingham compared to the rest of NH. Additionally, higher numbers of chlamydia cases were reported in Grafton, Cheshire, and Strafford counties than other STDs. Incidence rates of chlamydia increased over the past decade from 135.5 in 2004 to 236.3 in 2013 (all rates are per 100,000). For males of all ages, the chlamydia incidence rate was 142.4 while for females of all ages, the rate was 327.9. People under 40 years of age were more affected by chlamydia than those 40 years and older. The young non-Hispanic black (962.7) and non-Hispanic Asian (725.7) populations had a much higher chlamydia rate, compared to the young (under 40 years) white population (435.8).

Chlamydia rates per 100,000, NH (2004-2013)



Source: Sexually Transmitted Disease Management Information System (STD MIS)

Over the past ten years, the gonorrhea incidence rate has been low, ranging from a low of 7.6 in 2008 to a high of 13.7 in 2005. Gonorrhea affected people under 40 years of age more than those 40 years and older. Among those under 40 years old, blacks had higher rates of gonorrhea (77.0), compared to whites (11.5).

Syphilis rates were also low (below 5 per 100,000), but increased slightly over time with rates of 5.4 and 5.7 in 2012 and 2013 respectively. Nationally, syphilis is most common among men, and in NH, 84% of cases were male. Almost two-thirds (63.5%) of syphilis cases were among MSM and close to one-fifth (19.1%) were among heterosexuals. Unlike chlamydia and gonorrhea, syphilis was more common among those 40 years and older. Similarly to gonorrhea, blacks had higher rates of syphilis, compared to whites.

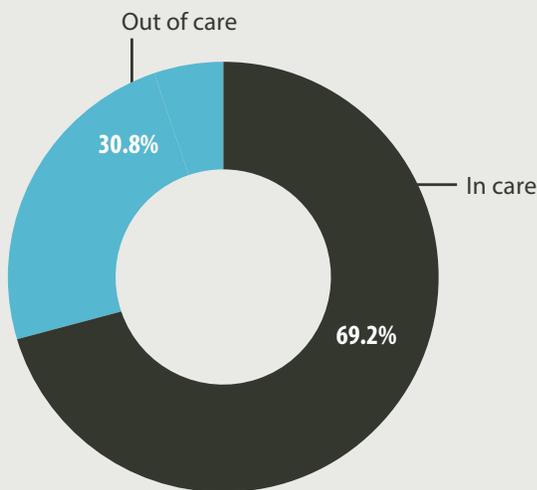
MSM are at highest risk for and most affected by HIV nationally.³ In NH, from 2004 to 2013, MSM made up 50.8% of all HIV diagnoses. Most of these were white (82.3%).⁴ Over one-fifth were 50 years or older (21.7%) almost half lived in Hillsborough County (43.7%). At the national level, only 47% of new HIV infections among MSM were white and the younger age groups (ages 13-24) were estimated to have the highest burden.⁵

Injection drug users are also at high risk for acquiring HIV because they may exchange syringes and equipment with others who are living with HIV. Among those living with HIV/AIDS in NH as of December 2013, 12.4% of PLWHA contracted HIV through IDU. Overall, these numbers are higher than national trends. Across the US, 8% of new cases reported were due to IDU transmission.⁶

WHAT ARE THE PATTERNS OF SERVICE UTILIZATION OF PLWHA IN NEW HAMPSHIRE?

In 2013, 544 people accessed Ryan White HIV/AIDS Program (RWHAP) services. This represented over forty percent (43.0%) of PLWHA in NH. In NH, RWHAP funds are used and distributed through the NH CARE Program. Services include primary medical care, case management, and home or community-based care. PLWHA in NH may also receive care in other states, particularly those who live in counties that border Maine, Massachusetts, and Vermont. The Boston Public Health Commission (BPHC), as a RWHAP Part A grantee, distributes RWHAP funding to provide services to seven counties in eastern Massachusetts and three southern NH counties: Hillsborough, Rockingham, and Stafford. Providers in these counties may receive RWHAP funding from BPHC in addition to the NH

Care status with PLWHA in NH (2004-2013)



Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

CARE Program.

RWHAP clients were mainly white (68.0%), male (71.5%), and of non-Hispanic or Latino ethnicity (88.1%). RWHAP clients were also older, with half aged 50 or older (51.2%). All PLWHA that accessed RWHAP services were also enrolled in the NH AIDS Drug Assistance Program (ADAP) and eligible to receive drug assistance.

WHAT ARE THE CHARACTERISTICS OF PERSONS IN NH WHO KNOW THEY ARE HIV-POSITIVE BUT ARE NOT RECEIVING PRIMARY MEDICAL CARE?

Nearly one third (30.8%) of those living with HIV in NH were estimated to have an unmet need for primary medical care. Among the total 1,265 PLWHA in NH in 2013, 389 (or 30.8%) had no evidence of a HIV primary medical care, which includes viral load or CD4 count test result, or ART within the prior year.

It is important to note that the percentage of PLWHA in NH with unmet need may be an overestimate because PLWHA who live in NH may be receiving care in other states. Almost two-thirds (62.3%) of NH's overall population resided in the three counties located within the Boston eligible metropolitan area (EMA) which also receives funds for HIV care from the BPHC's RWHAP Part A grant. These counties were also home to 68.8% of the state's PLWHA. Of the nearly one-third of PLWHA in NH that have unmet need for primary medical care, 69.4% lived in the EMA.

The characteristics of NH's unmet need population reflected the overall population of PLWHA in NH in that it was predominantly male (80.2%), white (70.4%), and over the age of 50 (51.2%). The mode of transmission also mirrored the total population with MSM being the most common.

The epidemiologic data described above will inform the work of the NH DHHS, service providers, and community members as they monitor the epidemic, develop strategies to address the unmet needs of PLWHA, and ensure access to quality HIV/AIDS care for PLWHA.

END NOTES

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Introduction

BACKGROUND

With approximately 50,000 new diagnoses each year in the United States (US), Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS) affects people across the US, but disproportionately impacts some regions, as a result of many factors, including population composition. In 2011, the highest number and rate of AIDS diagnoses were reported in the Southern region of the US with 15,855 cases and a diagnosis rate of 13.7 per 100,000 individuals. By comparison, the Northeast region, where New Hampshire (NH) is located, had 6,849 cases and a diagnosis rate of 12.3 per 100,000 individuals.¹ Since 2008, the Northeast rate has decreased, while the rate in the South remained stable.

This report provides additional information about people living with HIV/AIDS (PLWHA) in NH and their use of Ryan White HIV/AIDS Program (RWHAP) funded services. The structure of the report follows the Centers for Disease Control and Prevention (CDC) and Health Resources and Services Administration (HRSA) Integrated Guidelines for Developing Epidemiologic Profiles.² It starts with a summary of the methods and data sources used to create the report. This is followed by data, which are split into two sections: “HIV and AIDS Epidemiology” and “Ryan White HIV/AIDS Program.” Each of these sections addresses the core questions as outlined below:

SECTION 1: HIV/AIDS EPIDEMIOLOGY

- **Question 1.1** What are the sociodemographic characteristics of the general population in New Hampshire?
- **Question 1.2** What is the scope of the HIV/AIDS epidemic in New Hampshire?
- **Question 1.3** What are the indicators of risk for HIV/AIDS in New Hampshire?

SECTION 2: RYAN WHITE HIV/AIDS PROGRAM

- **Question 2.1** What are the patterns of service utilization of PLWHA in New Hampshire?
- **Question 2.2** What are the characteristics of persons in New Hampshire who know they are HIV-positive but are not receiving primary medical care?

The report also includes appendices of data tables that are discussed, but were not themselves included in the narrative.

METHODS

This epidemiologic profile was developed during 2013 and 2014 as part of the New Hampshire Department of Health and Human Services (NH DHHS) HIV needs assessment process and covers a ten-year period from 2004 to 2013.

Incidence and prevalence. Two epidemiologic measures are used throughout this report: incidence and prevalence. Incidence is defined as the number of new cases of disease in a population in a given time period. Prevalence is defined as the number of existing, known cases of the disease at a certain point in time.³ While this report primarily focuses on incidence to show how the HIV/AIDS epidemic has changed over the past decade, prevalence data are also included to show the overall burden of disease. For the purposes of this report, the phrase “persons living with HIV/AIDS (PLWHA)” refers to prevalence data (not incidence).

HIV surveillance case reports. When a provider diagnoses an individual with HIV/AIDS, a case report is submitted to NH DHHS Bureau of Infectious Disease Control. Epidemiology staff review and follow up on the case to ensure that required data are collected, such as mode of HIV exposure, county of residence, sex, and race/ethnicity. All details are documented in the NH enhanced HIV/AIDS reporting system (eHARS) database. NH has required name-based surveillance reporting for AIDS since 1983. In 1991, NH expanded its surveillance program to include non-name based reporting for HIV in line with the development of standardized HIV surveillance systems by the CDC. As of 2005, NH transitioned to name-based reporting for HIV cases, in addition to AIDS cases.

HIV transmission. Surveillance reports include the mode of exposure through which the individual likely acquired HIV. The CDC defines exposure categories according to a hierarchy.⁴ If a person has more than one transmission method, he/she is classified in the category that is higher in the hierarchy. The CDC-defined categories, in hierarchical order, are as follows:

- **Men who have sex with men (MSM):** men with a history of sexual contact with other men, as well as men who have had sexual contact with both men and women.
- **Heterosexual contact:** persons who had heterosexual contact with another person known to have HIV.

- **Injection drug use (IDU):** persons who received an injection of a non-prescribed drug.
- **MSM & IDU:** MSM who have also injected non-prescribed drugs.
- **Hemophilia/coagulation disorder receipt of blood transfusion, components, or tissue:** persons who received infected blood or tissue products during medical care.⁵
- **Mother with or at risk for STD/HIV infection:** persons born to a mother with or at risk for HIV.⁶
- **Risk not reported or identified:** persons with no reported exposure to HIV through any of the routes listed in the hierarchy of transmission categories.⁷

Mortality. Death matching is completed with HIV surveillance data to determine the vital status of a person living with HIV/AIDS. Death matching is not limited to those whose cause of death is HIV/AIDS; it includes all causes. The NH HIV surveillance program completes death matching with the NH death certificate database on a monthly basis. Additionally, NH DHHS completed death matching at the national level for the first time in October 2012 and then again in October 2013. NH DHHS used two national datasets: the National Death Index (NDI) and the Social Security Death Master File (SSDMF). The NDI identifies location and cause of death within the US. The SSDMF does not include cause of death, but it can identify individuals who die outside the United States. The CDC recommends that HIV surveillance programs complete death matching with the NDI and SSDMF annually, in addition to matching with their own state's vital statistics data at least once a year.

Data analysis. In this report, descriptive statistics are provided for HIV/AIDS and sexually transmitted disease (STD) surveillance data, including frequencies and percentages for categorical data (i.e., measures that have discrete groups, such as sex, race/ethnicity, or county) and means, medians, and ranges for continuous data (i.e., measures that can have any value within a range, such number of services delivered). In figures and tables

where the rate is fewer than five health events, data have been suppressed with a [—] in accordance with the NH DHHS policy.⁸ Counts and percentages for those diagnosed with HIV include those diagnosed with AIDS since individuals with AIDS also have HIV. For secondary data, 90% or 95% confidence intervals (CIs) are provided for national surveys, such as the American Community Survey (ACS), the Behavioral Risk Factor Surveillance System (BRFSS), and the National Survey on Drug Use and Health (NSDUH). CIs provide more information about population estimates, given the sampling methods used in these surveys, and they can be found either in the body of the report or in the Appendix. See the Data Sources section below for more details on how results from these surveys were incorporated into this report.

Limitations. A strength of this report is that it includes a full decade's worth of data, and secondary data (e.g., US Census, BRFSS) were available for that same time period. As a result, comparisons can be made between secondary data and STD/HIV surveillance data. In general, surveillance data reflect the number of known and reported cases; they do not capture the number of individuals living with HIV who are unaware of their status. In Question 1.2, the percentage of PLWHA with unmet need may be an overestimate because PLWHA who live in NH may be receiving care out of state. Data from HIV providers in other states providing care to NH residents are not available for use in this report. In Question 1.3, limited data were available to describe the IDU population in NH. Also, Hepatitis C data are not included in this report because NH DHHS does not require reporting of Hepatitis C.

DATA SOURCES

A variety of data sources were used to develop this report. **Table 1** shows data sources by section. The majority of the data for Question 1.1 was drawn from the ACS. For Question 1.2, HIV/AIDS data were pulled from the enhanced HIV/AIDS reporting system (eHARS), NH's HIV/AIDS surveillance database. STD data for Question 1.3 came from the Sexually Transmitted Disease Management Information

System (STDMIS). General population risk factor data were taken from the BRFSS. US Census Population Estimates Program data were used to calculate age-specific STD incidence rates. The NSDUH provided data on injection drug use in NH. For Questions 2.1 and 2.2, the majority of the data came from CAREWare, the database used by the NH CARE Program.

Table 1: Data sources by section

SECTION	DATA SOURCE(S)
Section 1: HIV and AIDS Epidemiology	
Question 1.1 What are the sociodemographic characteristics of the general population in New Hampshire?	American Community Survey (ACS), 2008-2012 5-year estimates Census 2000 Summary File 3
Question 1.2 What is the scope of the HIV/AIDS epidemic in New Hampshire?	New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database, 2004-2013
Question 1.3 What are the indicators of risk for HIV/AIDS in New Hampshire?	Behavioral Risk Factor Surveillance System (BRFSS), 2012 Sexually Transmitted Disease Management Information System (STDMIS), 2004-2013 US Census Population Estimates Program, 2012 National Survey on Drug Use and Health (NSDUH), 2011-2012
Section 2: Ryan White HIV/AIDS Program	
Question 2.1 What are the patterns of service utilization of PLWHA in New Hampshire?	New Hampshire CARE Program, 2013 New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database, 2013
Question 2.2 What are the number and characteristics of persons in New Hampshire who know they are HIV-positive but who are not receiving primary medical care?	New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database, 2013

SECTION 1

HIV and AIDS Epidemiology

QUESTION 1.1 | What are the sociodemographic characteristics of the general population in New Hampshire?

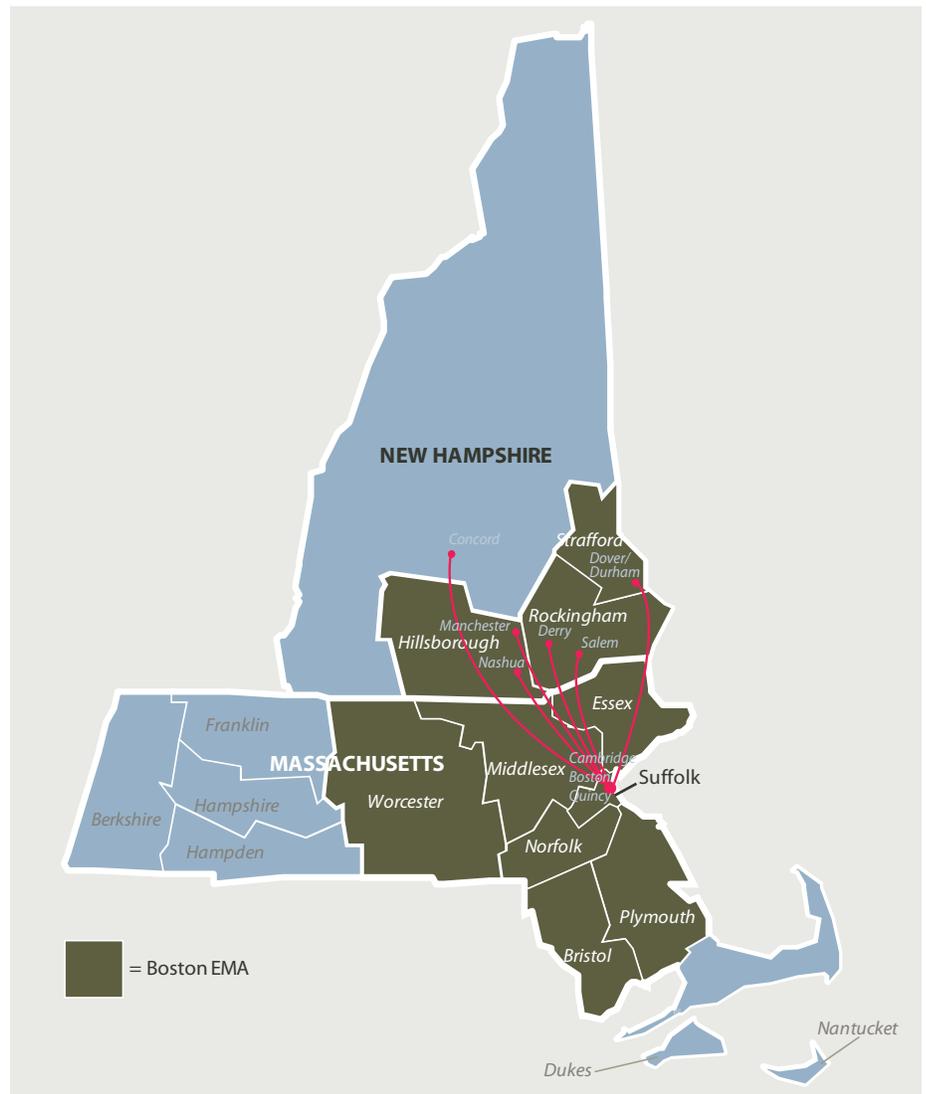
DEMOGRAPHIC INFORMATION

Geography

NH is comprised of ten counties. Three of the southern counties (Rockingham, Strafford, and Hillsborough) are part of the Boston Eligible Metropolitan Area (EMA), which receives RWHAP Part A funding granted to the Boston Public Health Commission. NH is bordered by Maine (ME) to the east, Massachusetts (MA) to the south, and Vermont (VT) to the west. Four of its five largest cities are located in the southern most region of the state, on the border with Massachusetts, and are part of the EMA.⁹ Given the proximity of neighboring states, many NH residents have access to goods and services available outside their home state.

It is common for NH residents, especially those living in southern counties, to commute to other states for work. The commuting flow from NH to MA is among the top 15 in the US. Over 85,000 NH workers cross the border into MA for their job (see **Figure 1**). Census data also indicate that over 100,000 residents of NH work in a different state. With this, it can be inferred that while about 85% of out-of-state commuters are heading to MA, another 15% are commuting to other states (e.g., VT or ME).^{10,11}

Figure 1: NH residents commuting to Boston Eligible Metropolitan Area (2011)¹²



Source: NPR.org

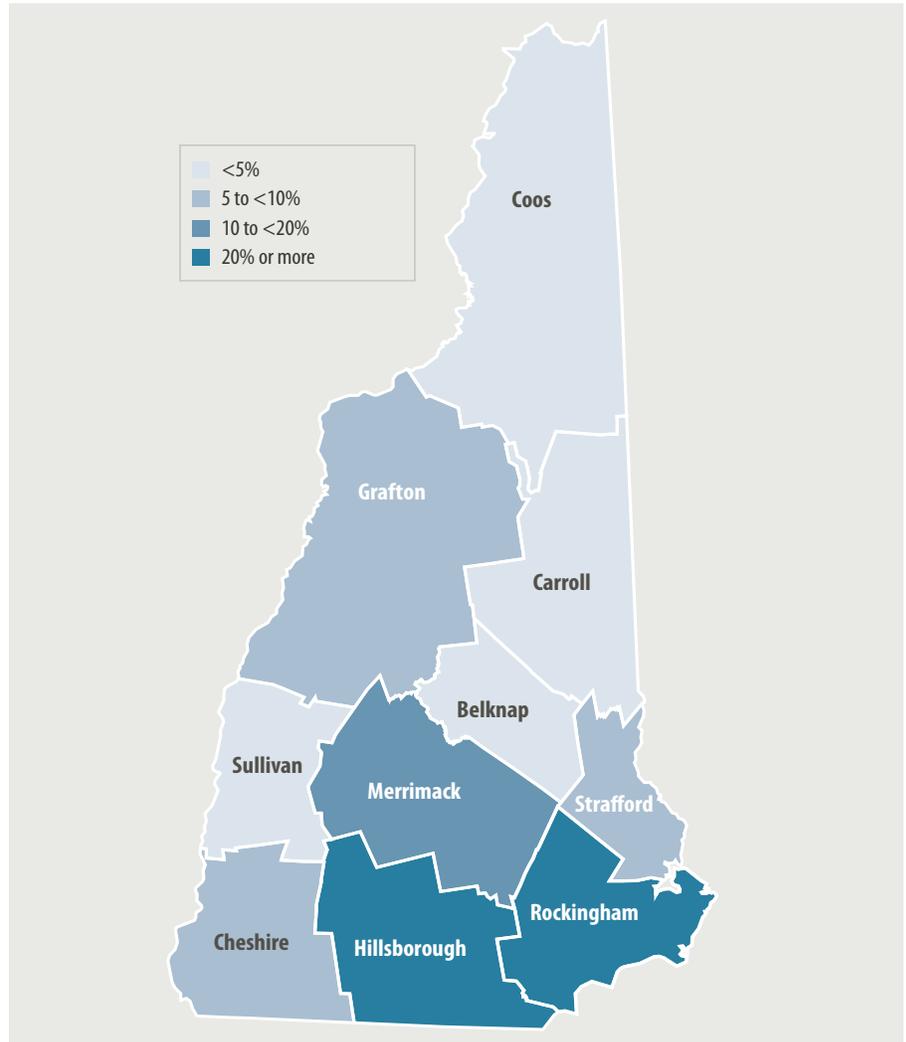
NH had 1.3 million residents as of 2012, representing 0.4% of the total US population of 309 million. This proportion remains unchanged from a decade ago.

Figure 2 illustrates population density within NH by county. As of 2012, almost two-thirds (62.3%) of NH residents lived in the southeastern section of the state, specifically Rockingham, Strafford, and Hillsborough counties. Six of NH's ten counties have less than 100,000 residents. The North Country, which can be defined as Carroll, Coos, and Grafton counties, is home to about 13% of the state's population. For a complete breakdown of population by county, see **Appendix A, Table A-1**.

Region of Birth

Over the past decade, the percentage of foreign-born residents in NH has been lower than the overall percentage for the US (**Figures 3 & 4**). Excluding those born abroad to US parents, just over 5% of NH's residents were born outside of the US or US territories in 2012, which is a slight increase from 4.4% in 2000. In comparison, the percentage of foreign-born residents in the US increased from 11.1% in 2000 to 12.9% in 2012.^{13, 14}

Figure 2: NH county population density (2012)



Source: American Community Survey, 2008-2012 5-year estimates

Figure 3: Region of birth, NH population (2012)*

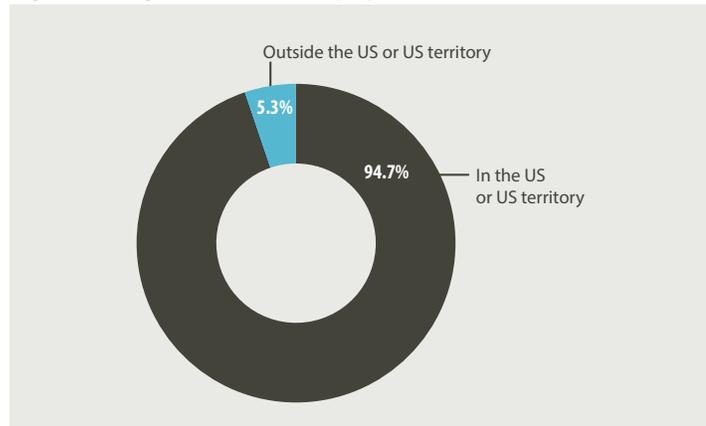
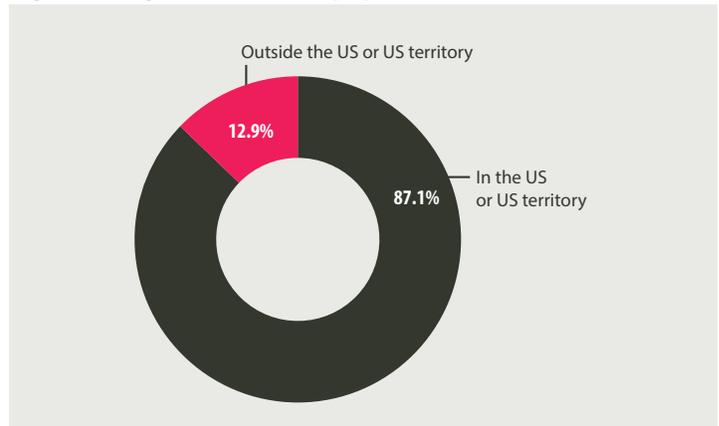


Figure 4: Region of birth, US population (2012)*



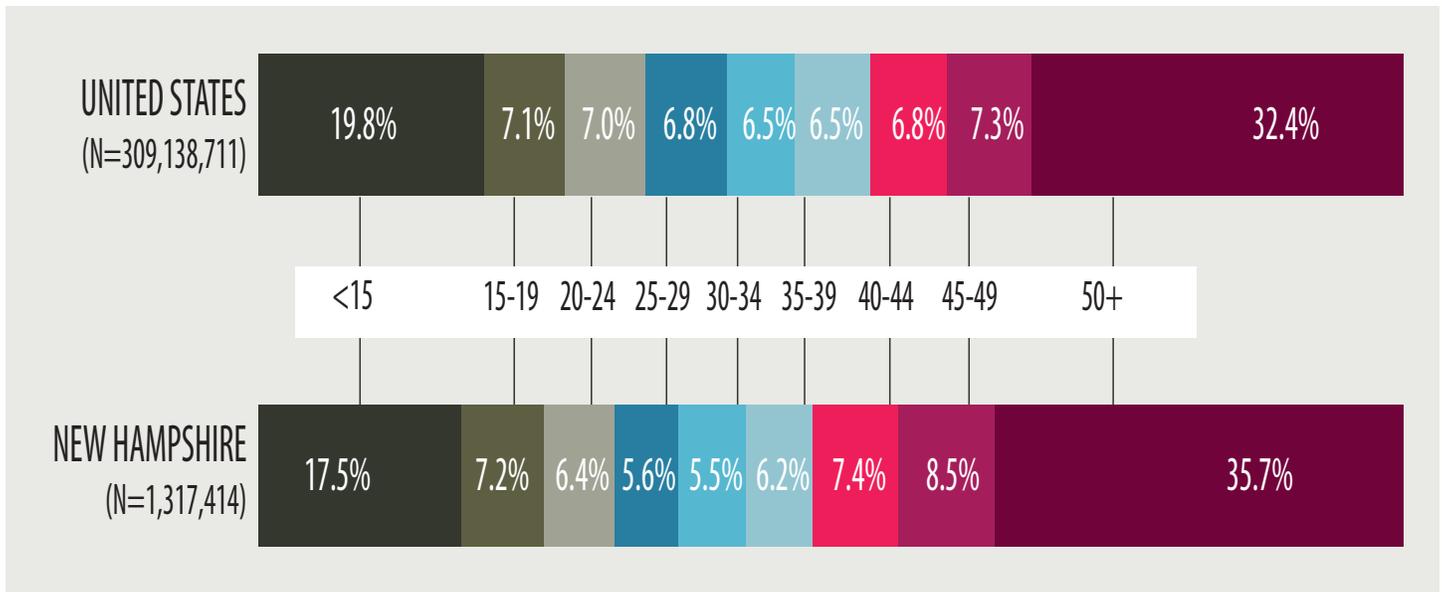
Source: American Community Survey 2008-2012 5-year estimates
*NH total = 1,317,474; US total = 309,138,711

Age & Gender

Overall, NH's population is older than that of the United States. Seventy-eight percent (78.3%) of NH residents are 18 years of age or older, whereas only 76.1% of the US population is in the same demographic. In particular, NH has a higher percentage of residents age 50 or older (35.7%) compared to the US (32.4%; see **Figure 5**).

In 2012, NH's population was nearly evenly split by gender with 50.7% female. This is similar to the US overall, where the population was 50.8% female. In NH, the proportion of males and females was similar across all age groups, though a higher percentage of females were 50+ compared to males. For a complete breakdown of NH's population by age group and gender, see **Appendix A, Table A-3**.

Figure 5: Age group (in years) NH and US populations (2012)



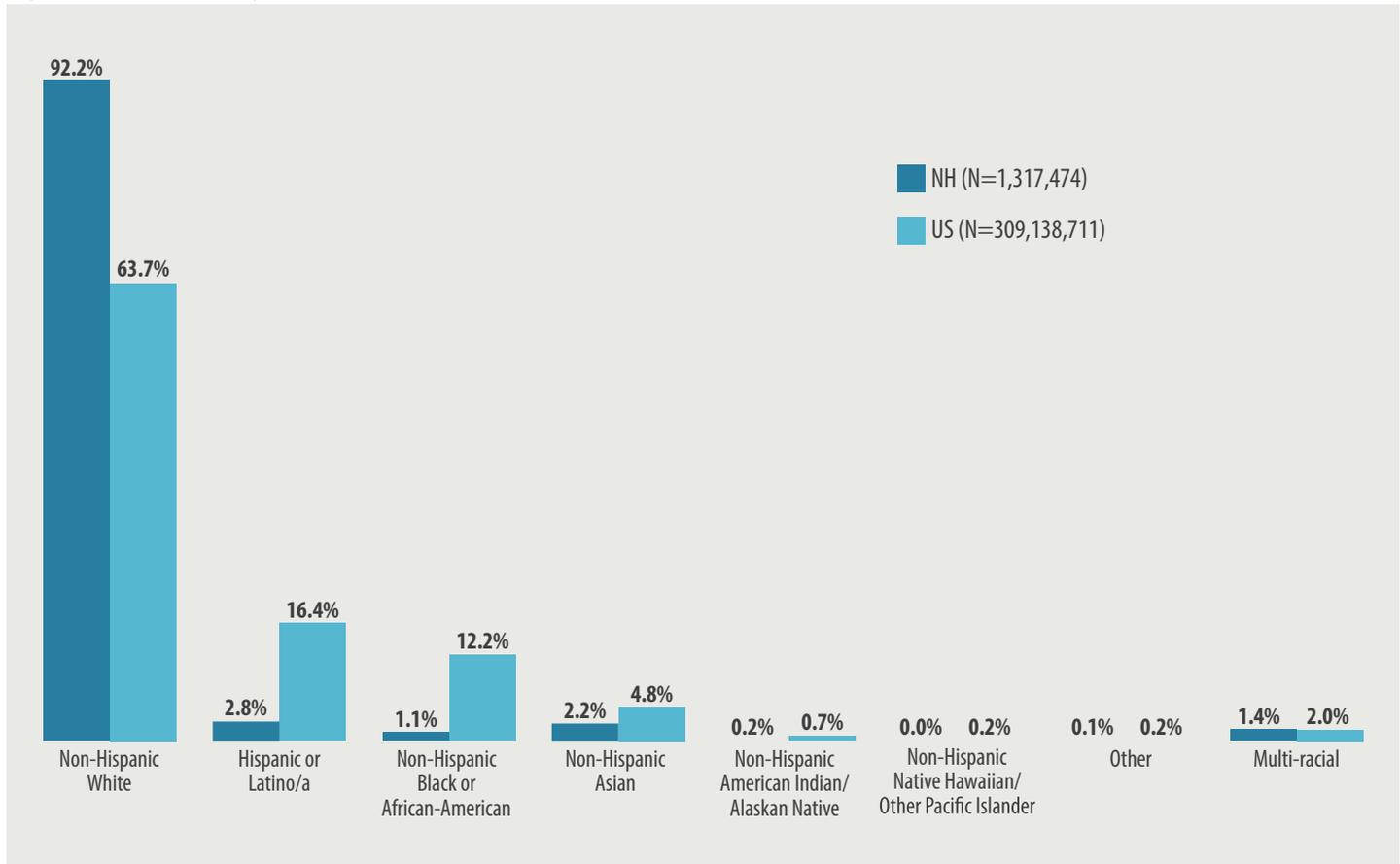
Source: American Community Survey 2008-2012 5-year estimates

Race/Ethnicity

As of 2012, the largest racial/ethnic group in NH was non-Hispanic white, representing over 92% of the total population and making the state more racially and ethnically homogenous than the US overall (see **Figure 6**). For both NH and the US, non-Hispanic white and Hispanic or Latino/a comprise the two most populous groups. The heterogeneity that does exist in NH has a different profile than the nation as a whole. Unlike the US, the third largest racial/ethnic group in NH is non-Hispanic Asian (2.2%), followed by individuals identifying as multi-racial (1.4%), and then non-Hispanic black or African American (1.1%). For the nation overall, non-Hispanic black or African American (12.2%) is the third largest racial/ethnic group, followed by non-Hispanic Asian (4.8%), and then individuals identifying as multi-racial (2.0%).

Hillsborough County was the most racially and ethnically diverse county in NH as of 2012. The county includes the two most populous cities in the state: Manchester and Nashua.¹⁵ In comparison to NH's nine other counties, Hillsborough had the lowest percentage of non-Hispanic white residents, and the highest percentage of all other racial and ethnic categories, except those identifying as multi-racial. For a complete breakdown of race and ethnicity by county, see **Appendix A, Table A-3**.

Figure 6: Race/ethnicity, NH and US populations (2012)*



Source: American Community Survey 2008-2012 5-year estimates

*Non-Hispanic Native Hawaiian/Other Pacific Islander represents less than 0.0001% of the population of NH.

SOCIOECONOMIC INFORMATION

Poverty Level

As of 2012, NH residents were wealthier than the overall population of the US (see **Table 2**). NH also has the lowest percentage of people in poverty among all US states, including its neighboring states: Massachusetts, Vermont, and Maine.¹⁶

In 2011, NH had a lower percentage of individuals living below the federal poverty level (8.4%) compared to the United States (14.9%), as well as a lower percentage of families living below poverty level (5.6%) compared to the United States (10.9%). Compared to all other counties in NH, Coos County had the highest percentage of persons living below poverty level (13.0%), followed by Strafford (11.2%), and Grafton (11.0%). All other counties were at ten percent or lower.

The percentage of single female households with children living below poverty level in NH (31.2%) is much higher, compared to the percentage of all families living below poverty level in NH (5.6%); however, it is lower than the percentage for the United States as a whole (39.1%).

Similarly, the percentage of children living below poverty level in NH (10.9%) is higher than the percentage of persons living below poverty level in NH (8.4%), but lower than the United States (20.8%).

Table 2: Poverty status, NH and US populations (2012)

POVERTY STATUS	NH (90% CI)	US (90% CI)
Percent of persons living below poverty level	8.4% (8.1, 8.7)	14.9% (14.8, 15.0)
Percent of families living below poverty level	5.6% (5.3, 5.9)	10.9% (10.8, 11.0)
Percent of single female households with children (<18 years old) living below poverty level	31.2% (29.2, 33.2)	39.1% (39.0, 39.2)
Percent of children (<18 years old) living below poverty level	10.9% (10.2, 11.6)	20.8% (20.6, 21.0)

Source. American Community Survey 2008-2012 5-year estimates

Educational Attainment

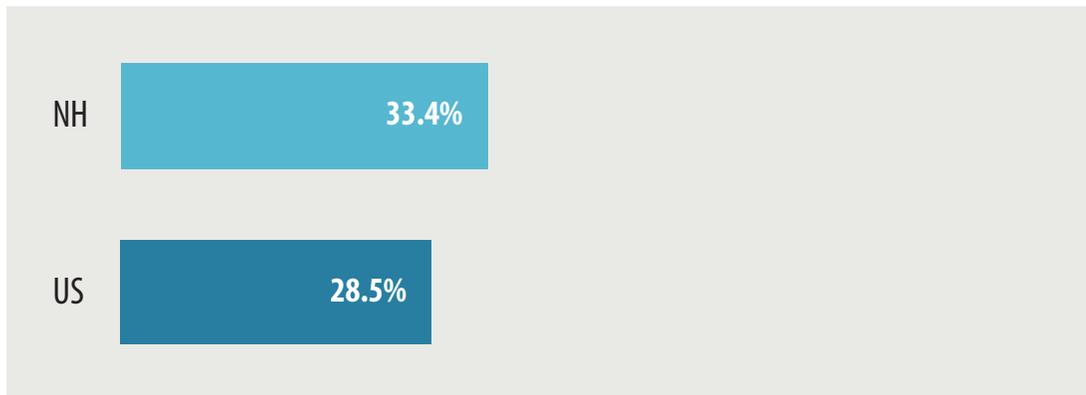
NH residents were more educated than the overall population of the United States as of 2012. The percentage of NH's population aged 25 or older with a high school diploma or GED was 91.4% while the US percentage was 85.7%. Similarly, the percentage of those 25 or older in NH with a bachelor's degree was 33.1% compared to 28.2% for the US. See **Figure 7** and **Figure 8**.

Figure 7: High school-level educational attainment, NH and US adult populations, ages 25 and older (2012)*



Source: American Community Survey 2008-2012 5-year estimates
*NH total = 1,317,474; US total = 309,138,71

Figure 8: College-level educational attainment, NH and US adult populations, ages 25 and older (2012)*



Source: American Community Survey 2008-2012 5-year estimates
*NH total = 1,317,474; US total = 309,138,711

Health Insurance

As of 2012, NH had a lower percentage of uninsured individuals (10.5%) than the US (14.9%); however, the percentage of uninsured racial/ethnic minorities in NH was higher compared to the US. **Table 3** shows higher percentages of uninsured among Black or African American, Asian, and Native Hawaiian/Other Pacific Islander populations compared to the US, but these differences are not statistically significant.

Table 3: Uninsured noninstitutionalized civilians, by age and race, NH and US populations (2012)

	NEW HAMPSHIRE			UNITED STATES		
	TOTAL	UNINSURED		TOTAL	UNINSURED	
	COUNT	COUNT	PERCENT (90% CI)	COUNT	COUNT	PERCENT (90% CI)
TOTAL	1,302,651	136,162	10.5% (10.2, 10.8)	303,984,241	45,206,153	14.9% (14.8, 15.0)
Age						
Under 18 years	285,331	12,728	4.5% (4.1, 4.9)	73,835,298	5,953,533	8.1% (8.0, 8.2)
18 to 64 years	844,228	122,713	14.5% (14.1, 14.9)	190,790,030	38,883,933	20.4% (20.2, 20.6)
65 years and older	173,092	721	0.4% (0.3, 0.5)	39,358,913	368,687	0.9% (0.8, 1.0)
Race*						
White	1,227,595	124,351	10.1% (9.8, 10.4)	226,004,684	29,609,697	13.1% (13.0, 13.2)
Black or African American	14,899	2,898	19.5% (16.0, 23.0)	37,487,829	6,551,035	17.5% (17.4, 17.6)
Hispanic or Latino/a	36,885	7,714	20.9% (18.5, 23.3)	49,828,677	15,017,022	30.1% (29.9, 30.3)
American Indian/ Alaska Native	2,430	525	21.6% (15.3, 27.9)	2,465,862	703,806	28.5% (28.2, 28.8)
Asian	28,630	4,357	15.2% (13.1, 17.3)	14,774,224	2,193,643	14.8% (14.6, 15.0)
Native Hawaiian and Other Pacific Islander	203	40	19.7% (3.1, 36.3)	500,618	86,649	17.3% (16.7, 17.9)
Some other race	8,630	1,888	21.9% (17.6, 26.2)	14,602,061	4,898,987	33.5% (33.3, 33.7)
Multi-racial	20,264	2,103	10.4% (8.8, 12.0)	8,148,963	1,162,336	14.3% (14.2, 14.4)

Source: American Community Survey 2008-2012 5-year estimates

*Race categories include Hispanic or Latino/a ethnicity; Hispanic or Latino/a includes any race

QUESTION 1.2 | What is the scope of the HIV/AIDS epidemic in New Hampshire?

HIV/AIDS OVERVIEW

The data presented below describe the incident cases of HIV in NH, but they do not represent all of those living with HIV, also known as a prevalence estimate (see “Methods” for a detailed explanation of these two measures). According to eHARS, a total of 1,265 persons were living with HIV in NH as of December 2013, with over half (54.5%) of these individuals living with AIDS.

Over the last decade, a total of 455 new HIV/AIDS cases were reported to the Bureau of Infectious Disease Control. Of these cases, 153 (33.6%) were HIV infections, 136 (29.9%) were AIDS diagnoses, and 166 (36.5%) were concurrent HIV infections and AIDS diagnoses. In NH, a case was considered concurrently diagnosed if an individual was reported with AIDS within one year of his/her HIV diagnosis.

Figure 9 shows the number of incident HIV infections, AIDS diagnoses, and concurrent diagnoses, from 2004 to 2013 by year. Overall, the number of incident HIV cases reported annually has dropped by about 50% from 66 in 2004 to 32 in 2013. Between those years, the number of incident cases has remained relatively stable, between a low of 37 cases and a high of 51 cases. Similarly, the number of AIDS cases reported has decreased from 23 in 2004 to 2 in 2013 and has remained under 10 cases since 2011. The number of concurrent diagnoses has remained relatively stable over the decade, with spikes of 25 cases in 2009 and 20 in 2012.

Figure 9: Number of HIV, AIDS, and concurrent HIV/AIDS diagnoses, NH (2004-2013)*



Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

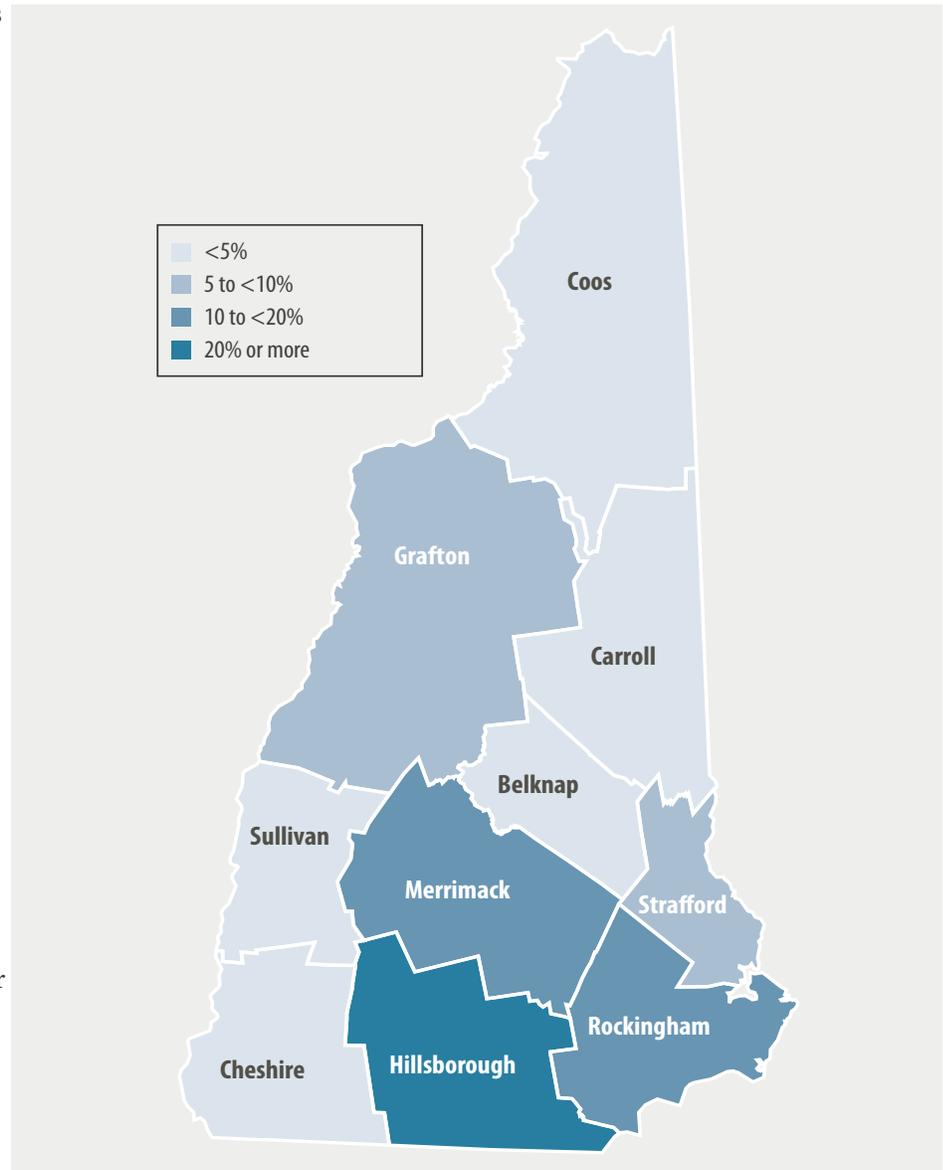
* Counts for HIV and AIDS are not mutually exclusive. Cases indicate a new diagnosis of AIDS in the specified year regardless of when diagnosed with HIV. A case was considered concurrently diagnosed if an individual was reported with AIDS within one year of HIV diagnosis.

HIV INFECTIONS AND AIDS DIAGNOSES

County

While the HIV/AIDS epidemic has affected each county in NH, some counties have a disproportionate number of PLWHA when compared to the general population. For example, while home to 30.4% of NH's population, Hillsborough county accounts for 44.2% of HIV cases and 45.4% of AIDS cases reported from 2004 to 2013. In contrast, Belknap County is home to 4.6% of NH's general population, though 2.4% of HIV cases and 2.3% of AIDS cases were reported among those living in the county. **Figure 10** maps the percentages of HIV and AIDS cases by county, with the darker colors showing a higher percentage of HIV/AIDS cases reported (see **Appendix A, Table A-7** for more details). The disproportionate percentages of HIV/AIDS cases across NH counties, compared to the general population, may impact the ability of PLWHA to access HIV-related services where they reside. In areas with a higher number of HIV/AIDS cases (e.g., Hillsborough County), HIV-related services may be easier to identify and access than in those with fewer cases (e.g., Belknap County). See **Section 2** for further discussions of access to care.

Figure 10: Percentage of HIV/AIDS cases reported, by county (2004-2013)



Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

Age

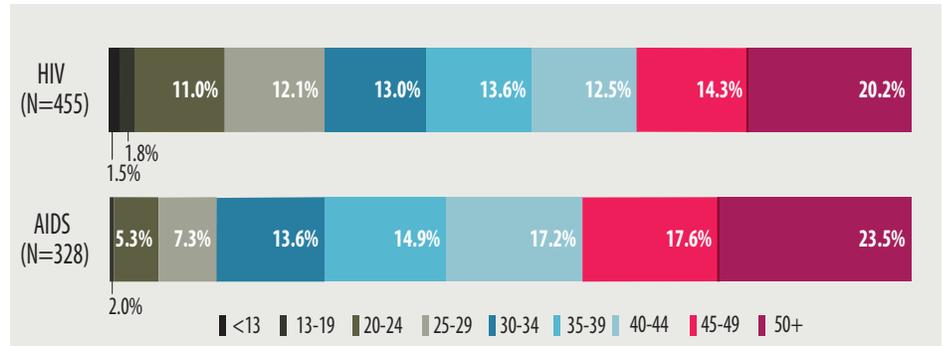
Figure 11 shows incident cases. Close to 50% of HIV cases reported were 40 years of age or older and only 20% age 50 or older. In comparison, AIDS cases reported were older with close to 60% 40 years or older and close to a quarter 50 years or older. The high percentage of older cases may be due to the effective treatment of HIV disease using antiretroviral therapy (ART), which allows PLWHA to live longer and better manage their disease. For the rest of the younger age categories, percentages are fairly evenly distributed among the age groups.

Figure 12 shows prevalent cases, those currently living with HIV/AIDS in NH. The prevalence across age categories is markedly different than the incident cases in that the percentage of those 40 of age or older is much higher for both HIV and AIDS, particularly for the 50 years of age or older group. About 45% of those living with HIV are 50 years or older (44.6%) and over half of those living with AIDS are 50 years or older (53.0%).

Gender

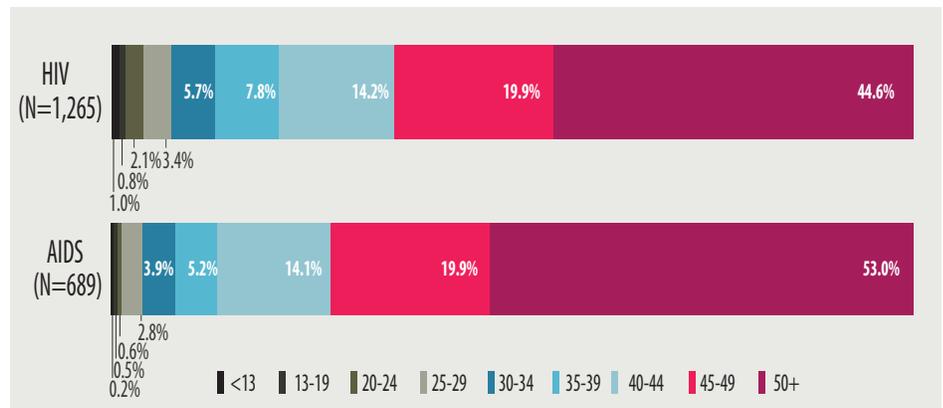
Figure 13 shows the number of HIV/AIDS cases reported by gender from 2004 to 2013. Most HIV (78.7%) and AIDS (76.5%) cases were male. The percentages for PLWHA (prevalence) in the state were similar to those of the incident cases, meaning that most of the HIV/AIDS epidemic in NH is found in the male population (see **Appendix A, Table A-8**). This finding provides important context for the discussion of risk factors and how HIV is being transmitted in NH (see “Risk Exposure Category” section below).

Figure 11: Percentage of HIV/AIDS cases reported by age, NH (2004-2013)



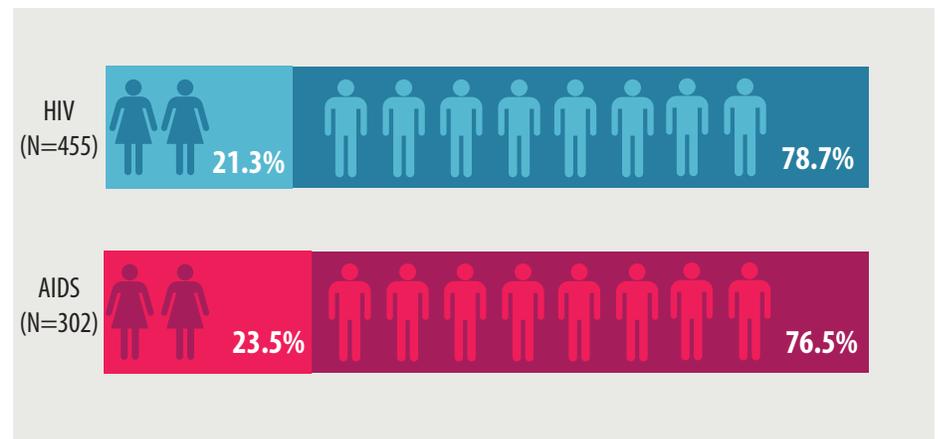
Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

Figure 12: Persons living with HIV/AIDS by age, NH (as of December 2013)



Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

Figure 13: Percentage of HIV/AIDS cases reported by gender, NH (2004-2013)

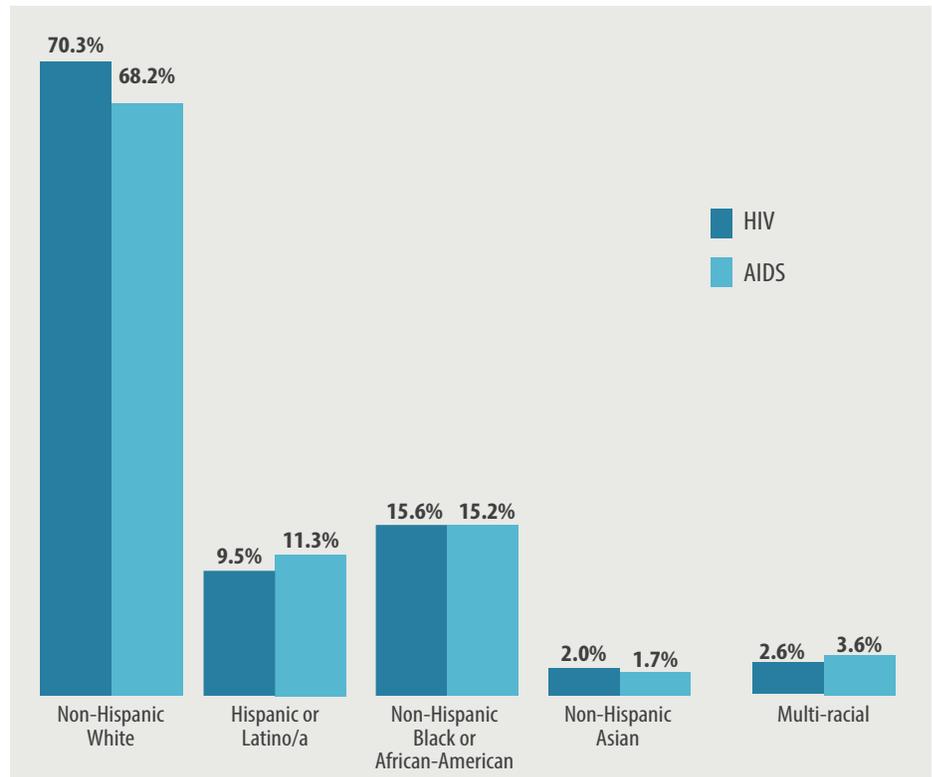


Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

Race/Ethnicity

As shown in **Figure 14**, most of the HIV/AIDS cases diagnosed between 2004 and 2013 were among non-Hispanic white individuals (HIV: 70.3%, AIDS: 68.2%). About 15% were non-Hispanic black and approximately 10% were Hispanic or Latino/a of any race. Less than 2% were non-Hispanic Asian and between 2 to 3% were multi-racial. Similar percentages by race and ethnicity among those living with HIV/AIDS (see **Appendix A, Table A-9**). Based on the overall makeup of NH as discussed in Section 1 above, the HIV/AIDS epidemic disproportionately affects racial and ethnic groups. Specifically, non-Hispanic white individuals within NH comprise a disproportionately lower percentage of the HIV/AIDS epidemic when compared to their distribution in NH's general population (92.2%). In contrast, non-Hispanic blacks are represented in the HIV/AIDS epidemic at a disproportionately higher rate than in the general population (1.1%). These differences may have implications for how HIV prevention activities within the state are conducted and the target populations chosen.

Figure 14: Percentage of HIV/AIDS cases reported by race/ethnicity, NH (2004-2013)

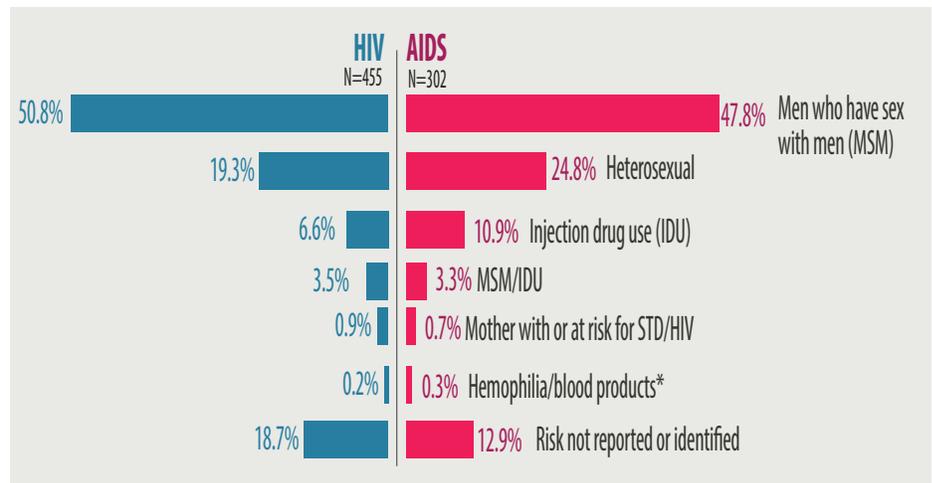


Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

Risk Exposure Category

Figure 15 shows the percentage of HIV/AIDS cases by mode of exposure. The largest percentage (50.8%) of new HIV cases in NH was among men who have sex with men (MSM). Almost one-fifth (19.3%) of reported cases acquired HIV through heterosexual contact, and 6.6% were exposed through injection drug use (IDU). Almost 20% of cases in NH did not have a mode of exposure reported or identified. Because of this, it is likely that the percentages for other exposures are higher than those that were reported to the Bureau of Infectious Disease Control. This gap in knowledge of risk exposure for all PLWHA can affect the effectiveness of outreach and prevention services in NH.

Figure 15: Percentage of HIV/AIDS cases reported by mode of exposure, NH (2004-2013)



Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

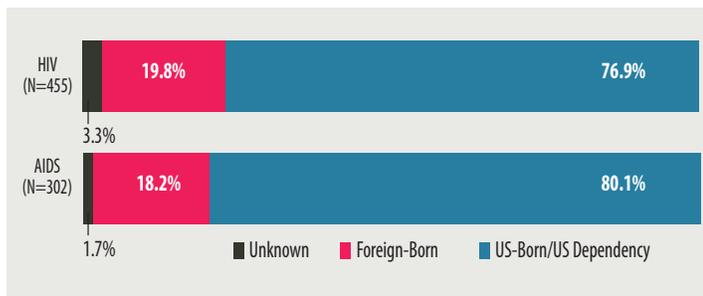
Region of Origin

Most of the incident HIV/AIDS cases in NH from 2004 to 2013 were among those born in the US or a US territory (76.9% for HIV and 80.1% for AIDS, see **Figure 16**).

The percentages of HIV and AIDS cases by region of origin are even more similar for PLWHA in NH as of 2013 (prevalence) than the incident cases in **Figure 16** (see **Figure 17**). Overall, the percentage of PLWHA born in the US or US dependencies (84.4%) is higher than the percentage born

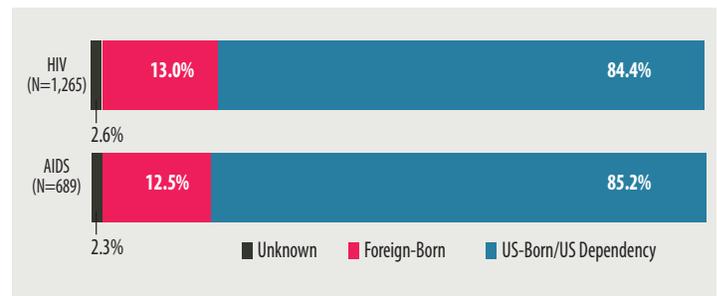
outside the US (13.0%). In comparison to the incident HIV/AIDS cases, a lower percentage of PLWHA were foreign born. This contrast may be because more recent diagnoses (in the past decade) were more likely to be born outside the US, compared to the diagnoses from before 2004. In the future, the percentage of incident cases that are foreign-born may decrease because NH DHHS stopped screening refugees for HIV infection in 2013 based on a change in CDC guidance that no longer required screening for refugees entering the US.¹⁷

Figure 16: HIV/AIDS incidence by region of birth, NH (2004-2013)



Source: NH enhanced HIV/AIDS Reporting System (eHARS) database

Figure 17: Persons living with HIV/AIDS by region of birth, NH (as of December 2013)



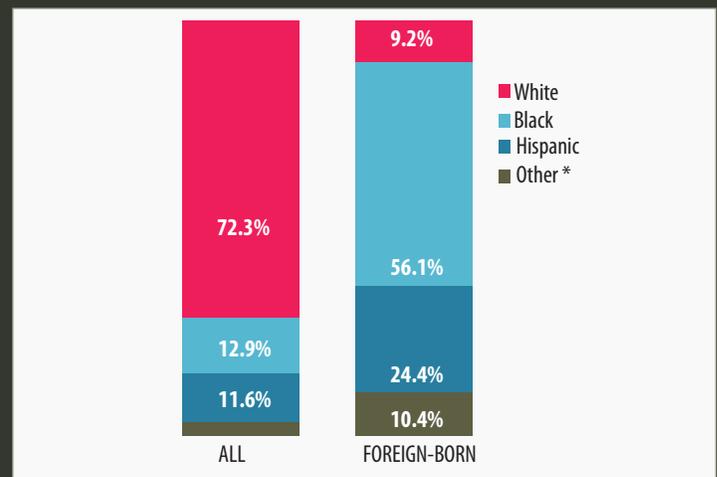
Source: NH enhanced HIV/AIDS Reporting System (eHARS) database

FOREIGN BORN PLWHA

Overall, the foreign born population in NH has increased slightly over the past decade, from 4.4%¹⁸ of the population in 2000 to 5.3% in 2012. ACS data provide estimates for specific places of birth among foreign born individuals. In 2012, over one-third (34.0%) of foreign born individuals in NH were from Asia, with 34.1% from the Americas, 25.4% from Europe, 5.9% from Africa, and 0.7% from Oceania.¹⁹

Among foreign born PLWHA, women make up a greater proportion of cases (48.8%) than among all PLWHA (23%). In addition, foreign born PLWHA tend to be younger, with 31.1% under 40 years of age compared to 21.3% of the general PLWHA population. Finally, a greater proportion of foreign born PLWHA are minorities (see **Figure 18**); 56.1% identify as black and 24.4% as Hispanic, compared to 12.9% and 11.6% respectively among all PLWHA in NH.

Figure 18: Foreign born persons living with HIV by race/ethnicity, NH (as of December 2013)



Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database
*Other includes Asian and multi-racial. For All PLWHA, it also includes a small number (less than 5) of unknowns (see Appendix A, Table A-5 for more details).

HOW DOES NEW HAMPSHIRE COMPARE TO ITS NEIGHBORING STATES?

At 1,317,474 people in 2012, NH has the second smallest population among the three bordering states: Maine (ME), Massachusetts (MA), and Vermont (VT). VT has fewer people (625,498), ME's population is similar to NH (1,329,084), and MA has about six times the population of either NH or ME (6,560,595).

ME, MA, VT, and NH are all similar in population age, gender, and educational attainment breakdowns. MA is more diverse in terms of race/ethnicity and place of birth, compared to the other three states. In MA, 14.8% of people are born outside of the country compared to a much lower percentage in neighboring states: 3.3% (ME), 4.0% (VT), and 5.3% (NH).

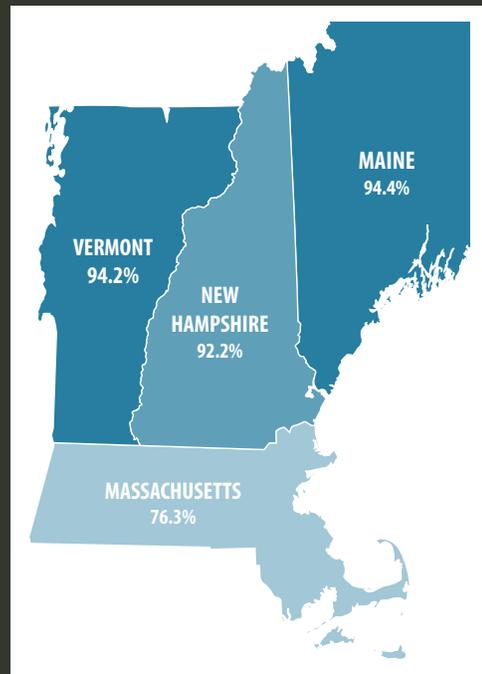
For race/ethnicity, ME, VT, and NH have similar demographic profiles. MA is more diverse, with 76.3% non-Hispanic white, 9.6% Hispanic, 6.2% non-Hispanic black or African-American, 5.4% non-Hispanic Asian, 1.7% multi-racial, 0.1% American Indian or Alaska Native, and 0.6% some other race. **Figure 19** shows the non-Hispanic white percentage for all four states.

With a rate of 4.2 HIV diagnoses per 100,000, NH is third among its neighboring states. ME has a similar rate at 4.5 and Vermont has a lower rate of 1.9. MA's rate of infection is much higher than all its northern neighbors at 19.2 HIV diagnoses per 100,000.²⁰

ME, MA, VT, and NH are all similar in the fact that the highest HIV infection rate (per 100,000) is found among the black or African American populations in each state (1,124.8; 1,530.6; 994.6; and

1,426.7 respectively). MA has a higher rate of infection within its Latino/a population (903.9). It is almost double the rate of ME (417.5) and NH (461.8) and over three times as large as in VT (283.5).²¹

Figure 19: Non-Hispanic white by state for ME, MA, NH, and VT (2012)



HIV/AIDS MORTALITY

Overall, mortality from HIV/AIDS in NH was low. The average number of deaths per year among PLWHA from 2004 to 2013 was 4.4. Deaths ranged from the highest value of 7 in 2010 to the lowest value of 2 in 2011. Among the 44 people with AIDS (PLWA) who died from 2004-2013, 63.6% were male, 22.7% were 50 years of age or older, 81.8% were white with 9.1% Hispanic and 4.6% black, 88.6% were born in the US, and 36.4% were reported to be MSM. Almost one-fifth (22.7%) were exposed through heterosexual contact and another 20.5% were exposed through injection drug use. Given the low total number of deaths, it is difficult to generalize about the mortality of the overall HIV positive population in NH.

QUESTION 1.3 | What are the indicators of risk for HIV/AIDS in New Hampshire?

This question explores indicators of risk for HIV/AIDS in four key areas: (1) the general population, (2) sexually transmitted diseases, (3) men who have sex with men (MSM), and (4) injection drug use.

GENERAL POPULATION

Less than one-third of NH's general population is estimated to have received an HIV test at some point in their lives (29.9%). This is somewhat lower than the 2010 estimate of 35.2% of all US adults. Excluding those 65 or older in NH, the percentage increases to 35.2%.

Table 4 shows percentages by age group for adults aged 18 and older.²² Almost half of those between 25 and 34 (47.5%) and between 35 and 44 years old (49.2%) have received an HIV test. The lower percentage of adults who ever received an HIV test in NH, relative the US estimate, indicates that more HIV testing may be needed and that individuals may experience barriers to testing. More investigation is needed to explore these topics.

An estimated 3.0% of adults in NH were at risk for HIV transmission in the 12 months prior to the survey (95% CI: 3.0, 3.1; for details on BRFSS, see "Methods"). Being "at risk for HIV transmission" included any of the following situations: 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, or had anal sex without a condom in the past year. The percentages were higher among younger age groups, however, the percentages were under 10% for all age groups. For ages 18 to 24 years, 6.9%

reported HIV transmission risk behavior (95% CI: 6.8, 7.1) and for ages 25 to 34 years, 8.4% reported HIV transmission risk behavior (95% CI: 8.3, 8.5) in the 12 months prior to the survey (See **Table 5**). HIV transmission risk behavior in NH was slightly lower than the national estimates. In the US, 3.7% (95% CI: 3.7, 3.7) of all adults ages 18 years and older reported HIV transmission risk behavior in the 12 months prior to the survey, while 4.4% (95% CI: 4.4, 4.4) of those between 18 and 64 years of age described the same.²³

Table 4: Ever received HIV test, excluding tests done as part of blood donation, by age group, NH adults ages 18 and older (2012)

Age Group	Number	Percentage (95% CI)	Total
18 – 24	68	30.3% (30.0, 30.5)	233
25 – 34	242	47.5% (47.2, 47.8)	510
35 – 44	426	49.2% (49.0, 49.5)	846
45 – 54	448	32.4% (32.2, 32.6)	1337
55 – 64	374	20.3% (20.1, 20.5)	1766
65 years or more	180	6.7% (6.6, 6.8)	2535
Total: ages 18 to 64	1558	35.2% (35.1, 35.3)	4692
Total: all ages	1738	29.9% (29.8, 30.0)	7227

Table 5: Risk behavior related to HIV transmission in the past 12 months, by age group, NH adults ages 18 and older (2012)

Age Group	Number	Percentage (95% CI)	Total
18 – 24	18	6.9% (6.8, 7.1)	233
25 – 34	36	8.4% (8.3, 8.5)	507
35 – 44	24	2.3% (2.2, 2.4)	843
45 – 54	22	1.6% (1.6, 1.7)	1332
55 – 64	19	1.2% (1.2, 1.3)	1763
65 years or more	10	0.5% (0.4, 0.5)	2526
Total: ages 18 to 64	119	3.6% (3.6, 3.7)	4678
Total: all ages	129	3.0% (3.0, 3.1)	7204

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

SEXUALLY TRANSMITTED DISEASES

STDs are an influential factor in the transmission of HIV disease.²⁴ Individuals with STDs are at a higher risk for HIV infection than the general population, and individuals who have STDs and are also HIV positive are more likely to transmit HIV to others. Additionally, PLWHA who also have STDs may experience symptoms related to their STDs that are more severe and harder to treat than if they were infected with a STD alone. The data in this section explore incidence rates for chlamydia and gonorrhea in NH from 2004 to 2013. Syphilis rates are not displayed in this section because they represented less than five health events per year. As described in Methods above, NH DHHS data release guidelines require that rates less than five be suppressed.

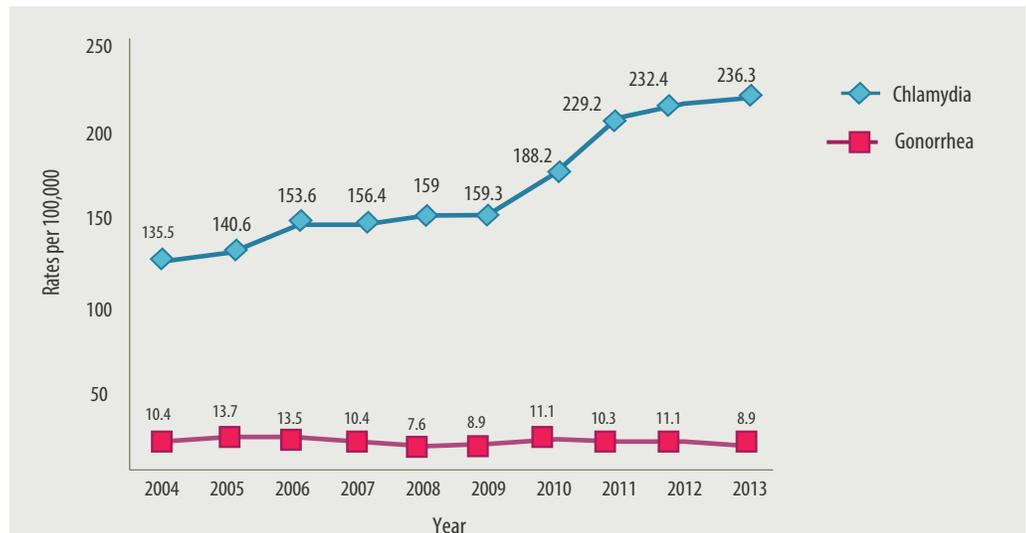
In NH, STDs represent the highest burden for reportable diseases. As shown in **Figure 20**, rates of chlamydia increased over the past decade from 135.5 in 2004 to 236.3 in 2013 (all rates are per 100,000). The largest increase was between 2009 and 2011, when the incidence rate jumped from 159.3 to 229.2, and has increased steadily since. Over the same time period, gonorrhea incidence has been low, ranging from a low of 7.6 in 2008 to a high of 13.7 in 2005. Syphilis rates are also low (below 5 per 100,000), but have increased slightly over time with rates of 5.4 and 5.7 in 2012 and 2013 respectively.

As illustrated in **Table 6**, women had much higher incidence rates of chlamydia. For males

of all ages, the chlamydia incidence rate was 142.4 while for females of all ages, the rate was 327.9. The greatest difference in rates by gender was among individuals aged 13 to 19 years and 20 to 24 years.

Nationally, syphilis is most common among men, and in NH, men represent 84% of all syphilis cases. Almost two-thirds of syphilis cases were identified among MSM (63.5%) and close to one-fifth among heterosexual individuals (19.1%).

Figure 20: Chlamydia and gonorrhea rates per 100,000, NH (2004-2013)



Source: Sexually Transmitted Disease Management Information System (STD MIS)

Table 6: Chlamydia, gonorrhea, and syphilis* age-specific incidence rates per 100,000 by gender, NH (2013)

	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
<13	—	—	—	—	—	—
13-19	210.2	1142.5	—	13.2	—	—
20-24	970.1	2350.4	37.7	51.1	13.3	—
25-29	483.9	755.9	38.2	18.8	22.9	5.4
30-34	225.1	335.7	13.2	8.1	23.8	5.4
35-39	75.5	114.6	16.8	8.2	22.4	—
40-44	58.4	53.1	15.7	—	15.7	—
45-49	27.9	25.3	17.9	—	8.0	—
50+	7.8	—	—	—	7.0	—
Total	142.4	327.9	10.4	7.5	9.6	1.8

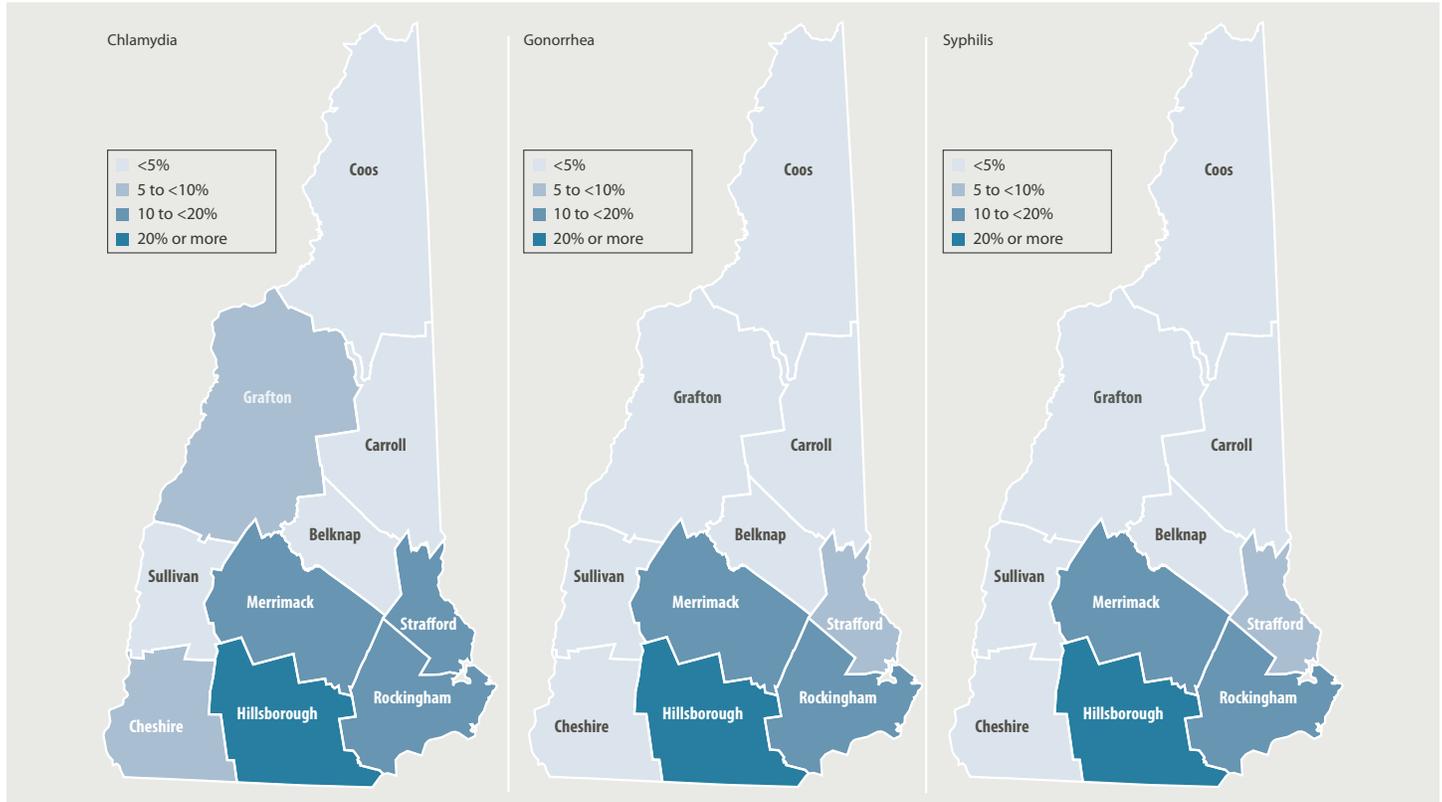
Source: Sexually Transmitted Disease Management Information System (STD MIS) and US Census Population Estimates Program

*Includes all types of syphilis, including primary, secondary, early latent, late latent, latent unknown duration, late with symptomatic manifestations, and congenital syphilis.

Figure 21 compares the number of cases of chlamydia, gonorrhea, and syphilis across all ten counties. Gonorrhea and syphilis cases are similar throughout the state, with a higher concentration in the southern region. Chlamydia

group. The young non-Hispanic black or African-American (962.7) and non-Hispanic Asian or Pacific Islander (725.7) populations have a much higher chlamydia rate, compared to the young white population (435.8). Blacks also have higher rates of gonorrhea and syphilis, compared to whites.

Figure 21: STD cases reported by county (2004-2013)



Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

is similar in that there are a higher number of reported cases in the southern counties; however, there are a higher number of reported cases of chlamydia in Grafton, Cheshire, and Strafford counties than the other STDs.

Table 7 shows chlamydia, gonorrhea, and syphilis rates (per 100,000) by race for those less than 40 years old and 40 years or older. The younger group is more affected by chlamydia than the older population. The same is true for gonorrhea, however syphilis is found more in the older

Table 7: Chlamydia, gonorrhea, and syphilis* age-specific incidence rates per 100,000 by race, NH (2013)

RACE	CHLAMYDIA		GONORRHEA		SYPHILIS	
	<40 YEARS	40+ YEARS	<40 YEARS	40+ YEARS	<40 YEARS	40+ YEARS
Non-Hispanic White	435.8	12.0	11.5	4.5	5.3	3.6
Non-Hispanic Black or African-American	962.7	82.7	77.0	—	38.5	66.1
Non-Hispanic American Indian/Alaska Native	725.7	—	72.6	—	—	—
Non-Hispanic Asian or Pacific Islander	110.4	16.6	5.0	—	—	24.8
Multi-racial	137.3	—	7.2	—	7.2	—
Hispanic or Latino/a	442.3	41.9	23.3	—	10.0	16.8
Total	433.7	13.4	13.2	4.3	5.9	4.7

Source: Sexually Transmitted Disease Management Information System (STD MIS) and US Census Population Estimates Program

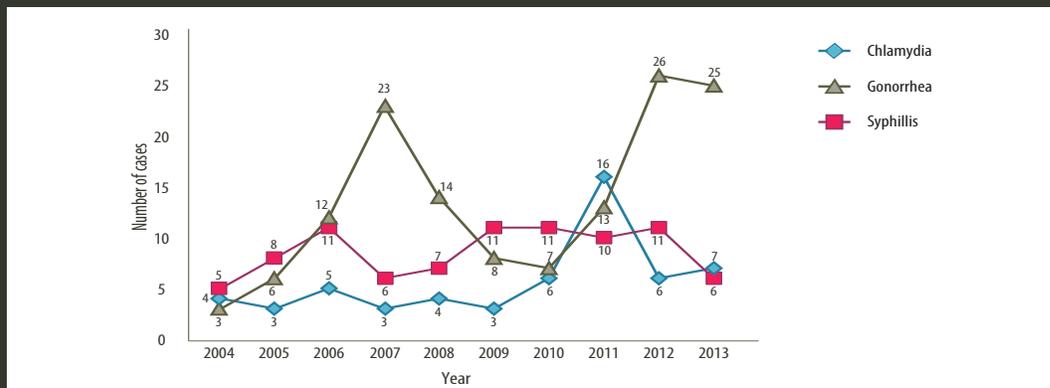
*Includes all types of syphilis, including primary, secondary, early latent, late latent, latent unknown duration, late with symptomatic manifestations, and congenital syphilis.

WHAT IS THE IMPACT OF COMORBIDITIES ON THE HIV/AIDS EPIDEMIC IN NEW HAMPSHIRE?

STD co-infection with HIV/AIDS remains a public health challenge nationally and locally. In NH, over one-fourth of syphilis cases reported over the decade were co-infected with HIV (30.5%). The percentages of co-infection for gonorrhea and chlamydia were lower at 6.2% and 0.2% respectively, however these data are considered incomplete as co-infection information was not collected consistently during this time.

Figure 22 shows chlamydia, syphilis, and gonorrhea incidence rates from 2004 to 2013 among those living with HIV/AIDS. Gonorrhea cases have fluctuated greatly over the decade. Overall, reported syphilis cases increased from 2004 to 2013. The highest number of syphilis cases among PLWHA was in 2007 and 2012. Chlamydia cases have remained fairly consistent across the years, except from 2010 to 2012, where the number of chlamydia cases reported among PLWHA fell and rose again.

Figure 22: Among PLWHA, chlamydia, syphilis, and gonorrhea incident cases, NH (2004-2013)



Source: Sexually Transmitted Disease Management Information System (STD MIS)

*Includes all types of syphilis, including primary, secondary, early latent, late latent, latent unknown duration, late with symptomatic manifestations, and congenital syphilis.

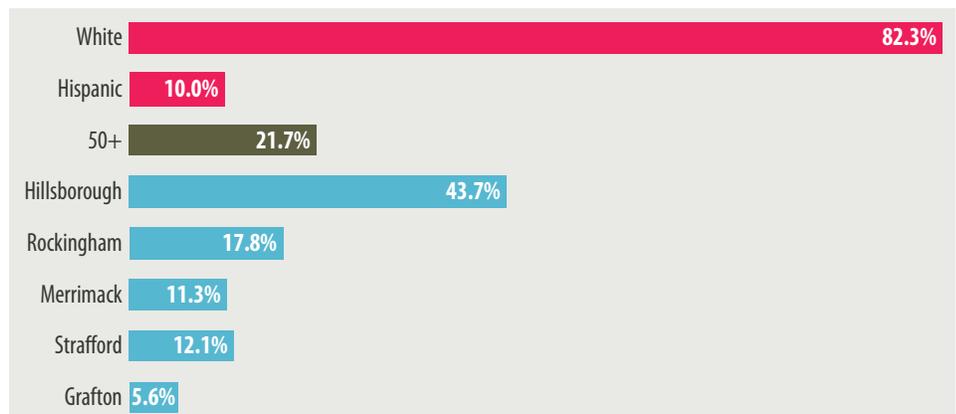
MEN WHO HAVE SEX WITH MEN

MSM are at greatest risk for acquiring HIV because they often report engaging in rectal intercourse, a sexual behavior that places individuals at increased risk for acquiring or transmitting HIV. MSM are the most affected subpopulation in the HIV epidemic nationally.²⁵ While MSM are estimated to comprise about 2% of the US population, nearly two-thirds (63%) of new HIV infections in the US in 2010 were among MSM. This same population accounted for 79% of the estimated HIV diagnoses among males aged 13 and older in 2011.²⁶ In NH, from 2004 to 2013, MSM made up 50.8% of HIV diagnoses.

Figure 23 shows key characteristics of this population in recent years, from 2004 to 2013 (see **Appendix A, Table A-10** for additional details). Most HIV/AIDS diagnoses reported from 2010 to 2014 among MSM in NH were white

(83.2%). Almost a quarter was 50 years of age and older (23.2%) and over one third lived in Hillsborough County (39.0%). This is quite different than the US as a whole, where only 47% of HIV diagnoses among MSM were white²⁷ and the greatest number of estimated new HIV infections in 2010 was among MSM in the youngest age group.²⁸

Figure 23: Men who have sex with men (MSM) by selected demographic characteristics, NH (2004-2013)*



Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

*MSM HIV cases reported (n=95)

INJECTION DRUG USE

Injection drug users are at risk for acquiring HIV/AIDS, or other bloodborne infections, because they may exchange syringes and equipment with others who are infected with HIV. The use of other drugs or alcohol may also contribute to the spread of HIV indirectly by increasing the likelihood of risky sexual behavior.²⁹ As described in Question 1.2, 6.6% of HIV cases and 10.9% of AIDS cases reported in NH from 2004 to 2013 were from injection drug use. Among those living with HIV/AIDS in NH as of December 2013, 12.4% of PLWHA were infected through injection drug use. Due to the low total number of cases since 2010, it was not possible to perform a similar sub-analysis of the IDU incident cases as done above for MSM.

Limited data were available to identify the scope of injection drug use in the general population of NH and to describe the IDU population at risk for HIV. The NSDUH provides state-specific and national estimates for illicit drugs used other than marijuana in the past month.³⁰ Overall, the prevalence of illicit drug use in NH is comparable to the national picture.

For 2011 to 2012, among those 12 years or older, 3.5% of NH residents reported using illicit drugs other than marijuana in the past month.³¹ The national percentage was similar, though lower than NH, among those 12 years or older (3.3%) as well as among those 18 years and older (3.2%).³² (See **Appendix A, Table A-11** for details.)

SECTION 2:

Ryan White HIV/AIDS Program

QUESTION 2.1 | What are the patterns of service utilization of PLWHA in New Hampshire?

Over one-third (43.0%) of the reported PLWHA in NH are accessing services through the Ryan White HIV/AIDS Program (RWHAP). In New Hampshire, RWHAP funds are used and distributed through the NH CARE Program. Providers in the three NH counties that are part of the Boston EMA may also receive funding from the Boston Public Health Commission (BPHC).

The characteristics of PLWHA who access NH CARE Program services correspond with the overall PLWHA population reported to the NH Bureau of Infectious Disease Control. RWHAP clients are mainly white (68.0%), male (71.5%), and of non-Hispanic or Latino ethnicity (88.1%). RWHAP clients are also older, with 65% aged 45 and older.

Table 8: Comparison of characteristics of Ryan White HIV/AIDS Program clients and those of persons with HIV/ AIDS reported to the HIV/ AIDS Surveillance System, NH, as of December 31 (2013)

Characteristics	Ryan White HIV/AIDS Program Clients (N=544)		Persons with HIV/AIDS Reported to NH eHARS (N=1265)	
	COUNT	PERCENT	COUNT	PERCENT
RACE				
White	370	68.0%	914	72.3%
Black	84	15.4%	163	12.9%
Multi-racial	27	5.0%	25	2.0%
Asian/Pacific Islander	10	1.8%	14	1.1%
American Indian/Alaska Native	2	—	0	—
Unknown/Unreported/Other ¹	51	9.4%	149	11.8%
TOTAL	544	100.0%	1265	100.0%
ETHNICITY				
Not Hispanic/Latino	479	88.1%	1116	88.2%
Hispanic/ Latino	65	12.0%	147	11.6%
Unknown/Unreported	0	—	2	—
TOTAL	544	100.0%	1265	100.0%
SEX				
Male	389	71.5%	974	77.0%
Female	151	27.8%	291	23.0%
Transgender	4	—	0	—
TOTAL	544	100.0%	1265	100.0%
AGE GROUP				
≤ 24	23	4.2%	50	4.0%
25 – 44	165	30.3%	399	31.5%
45 – 64	332	61.0%	764	60.4%
≥ 65	24	4.4%	52	4.1%
Unknown/Unreported	0	—	0	—
TOTAL	544	100.0%	1265	100.0%
MODE OF EXPOSURE				
Men who have sex with men (MSM)	232	42.7%	610	48.2%
Heterosexual	160	29.4%	246	19.4%
Intravenous drug use (IDU)	75	13.8%	157	12.4%
Perinatal	12	2.2%	23	1.8%
MSM & IDU	11	2.0%	52	4.1%
NIR/Unknown	0	—	166	13.1%
TOTAL	544	100.0%	1265	100.0%

Source: New Hampshire CARE Program and eHARS

¹Includes those who report race as Hispanic

The RWHAP services accessed by PLWHA in NH include primary medical care, case management, and home or community-based care (see **Table 9**). On average, clients saw their case managers twice a year. For primary medical care, clients visited their providers almost three times a year on average, which is higher than the recommendation by HRSA to see providers once every six months,³³ but indicates that clients are engaged in their medical care. In comparison to primary medical care, the average number of home or community-based care visits was higher at 4.5 visits for 2013.

Table 9: Ryan White HIV/AIDS Program (RWHAP) service units (2013)

Units of primary medical care	RWHAP Part A & B*
Average number of visits per client	2.7
Median number of visits per client	2.0
Range of visits per client	1 – 14
Units of medical case management	RWHAP Part B
Average number of visits per client	2.3
Median number of visits per client	2.3
Range of visits per client	0 – 12
Units of home/community-based care (HCBC)	RWHAP Part B
Average number of visits per client	4.5
Median number of visits per client	2
Range of visits per client	1 – 11

Source: New Hampshire CARE Program

*Part A reflects RWHAP funding received through the Boston Public Health Commission. Part B reflects NH CARE Program funding.

QUESTION 2.2 | What are the number and characteristics of persons in New Hampshire who know they are HIV-positive but who are not receiving primary medical care?

According to HRSA’s definition, “An individual with HIV or AIDS is considered to have an unmet need for care (or to be out of care) when there is no evidence that s/he received any of the following three components of HIV primary medical care during a defined 12-month time frame:

- Viral load testing
- CD4 count
- Provision of anti-retroviral therapy.”³⁴

Nearly one third of those living with HIV in NH are estimated to have an unmet need for medical care (30.8%).

Table 10 shows the estimate of unmet need, calculated according to HRSA’s framework and guidance.³⁵ Among the

total 1,265 PLWHA in NH in 2013, 389 had no evidence of a HIV primary medical care, including viral load or CD4 count test result, or ART within the prior year. For PLWA, the percentage with unmet need was slightly lower (28.8%). For PLWH who had not been diagnosed with AIDS, the percentage was slightly higher (33.0%).

It is important to note that the percentage of PLWHA in NH with unmet need may be an overestimate because PLWHA who live in NH may be receiving care in other states. Data from other state’s HIV providers providing care to NH residents are not available for use in this report.

Table 10: Unmet need estimate, NH (2013)

Population Sizes		Value	Data Source(s)	
Row A.	Number of persons living with AIDS (PLWA) for CY 2013.	689		eHARS
Row B.	Number of persons living with HIV (PLWH) for CY 2013.	576		eHARS
Row C.	Total number of PLWHA for CY 2013.	1,265		eHARS
Calculated Results		Value	Data Source(s)	
Row D.	Number of PLWA who received the specified HIV primary medical care during the 12-month period for CY 2013.	490		eHARS
Row E.	Number of PLWH/non-AIDS/aware who received the specified HIV primary medical care during the 12-month period for CY 2013.	386		eHARS
Row F.	Total number of PLWHA who received the specified HIV primary medical care during the 12-month period for CY 2013.	876		eHARS
Calculated Results		Value	Percent	Calculation
Row G.	Number of PLWA who did not receive the specified HIV primary medical care for CY 2013.	199	28.8%	Value = A - D. Percent = G/A
Row H.	Number of PLWH/non-AIDS/aware who did not receive the specified HIV primary medical care for CY 2013.	190	33.0%	Value: B - E. Percent: H/B
Row I.	Total PLWHA not receiving the specified HIV primary medical care (quantified estimate of unmet need) for CY 2013.	389	30.8%	Value: G + H. Percent: I/C

Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

The characteristics of PWLHA with unmet need reflected the overall population of PLWH in NH. It is predominantly male (80.2%), white (70.4%), and over the age of 50 (51.2%). The mode of transmission also mirrors the total population with MSM being the most common. A high percentage of those with unmet need did not have a mode of transmission

reported (18.5%). The next two most common reported categories are heterosexual contact and IDU, at 15.7% and 15.2% respectively. The three counties in the Boston EMA have the highest incidence rates in the state, and most of those with unmet need are living in the EMA (69.4%).

Table 11: Unmet need estimate, by demographic characteristics, NH (2013)

	#1: HIV+ aware population	#2: % of HIV aware population ¹	#3: Number with unmet need	
TOTAL	1,265	100%	389	100%
DIAGNOSIS				
PLWA	689	54.5%	199	51.2%
PLWH/non-AIDS	576	45.5%	190	48.8%
GENDER				
Male	974	77.0%	312	80.2%
Female	291	23.0%	77	19.8%
RACE/ETHNICITY				
White	914	72.3%	274	70.4%
Black	163	12.9%	57	14.7%
Hispanic (any race)	147	11.6%	50	12.9%
Asian	14	1.1%	3	—
Multi-racial	25	2.0%	4	—
Unknown	2	—	1	—
RESIDENCE				
EMA	869	68.7%	270	69.4%
Non-EMA	396	31.3%	119	30.6%
AGE				
<13	13	1.0%	1	—
13-19	10	0.8%	3	—
20-24	27	2.1%	5	1.3%
25-29	50	4.0%	5	1.3%
30-34	72	5.7%	21	5.4%
35-39	98	7.8%	30	7.7%
40-44	179	14.2%	49	12.6%
45-49	252	19.9%	76	19.5%
50+	564	44.6%	199	51.2%
MODE OF TRANSMISSION				
MSM	610	48.2%	174	44.7%
Heterosexual contact	246	19.5%	61	15.7%
Risk not reported or identified	166	13.1%	72	18.5%
IDU	157	12.4%	59	15.2%
MSM & IDU	52	4.1%	15	3.9%
Mother with or at risk for STD/HIV infection	23	1.8%	4	—
Hemophilia/coagulation disorder receipt of blood transfusion, components, or tissue	11	0.9%	4	—

Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

¹ This percentage is calculated using the number in the HIV+ aware population (#1) divided by the total number in the HIV+ aware population.

² This percentage is calculated using the number with unmet need (#3) divided by the total with unmet need.

ASSESSING AND ADDRESSING UNMET NEED

For the more than 30% of the PLWHA population that are estimated to have unmet need in NH, there are many unanswered questions about why they are not receiving HIV primary medical care. Are there systematic barriers to accessing primary medical care services? What are they? These questions need to be answered to inform effective strategies for addressing and alleviating unmet need.

Examples of potential barriers include but are not limited to: transportation, comfort with provider(s), cost of receiving care, being unaware that a service was available, a service being unavailable in a certain area, and immigration status. More investigation is needed to determine the most influential factors that affect access to care, especially in areas with high levels of unmet need. NH DHHS is currently conducting a state-wide needs assessment to explore these areas and subsequent reports will be released with those findings.

Just under two-thirds of NH's overall population resides in the Boston EMA (62.3%). It is also home to 68.8% of the state's population of PLWHA. Of the nearly one-third of PLWHA in NH that have unmet need for primary medical care, 69.4% lived in the Boston EMA. This could point to issues of access within those counties, but additional factors must be considered. One possibility is that NH residents are receiving care in Massachusetts, or another bordering state. Given the volume of NH residents that commute in and out of Massachusetts every day, it could be informative to explore this further.

The HIV continuum of care provides a model for jurisdictions to identify areas for improving the service delivery for PLWHA.³⁶ The care continuum model supports the goals of the National HIV/AIDS Strategy, including reducing the number of new infections, increasing access to care and improved health outcomes for PLWHA, and reducing HIV-related health disparities.³⁷ The continuum describes the percentage of the population that falls into the following five stages: (1) diagnosed with HIV (positive Western blot test), (2) diagnosed and ever linked to HIV care (one CD4 or viral load test ever), (3) linked to HIV care (one CD4 or viral load test in the most recent year), (4) retained in care (two CD4 or viral load tests at least three months apart in the most recent year), and (5) achieved viral suppression (most recent viral load count under 200 copies).

Jurisdictions across the US use the continuum to plan and allocate resources for HIV-related care and services. The NH DHHS has calculated a preliminary version of the care continuum, in accordance with CDC and HRSA guidelines, for NH as a whole, as well as for specific subpopulations. Currently, the NH DHHS is reviewing NH's care continuum to ensure it reflects the most up-to-date and accurate HIV surveillance data with anticipated release in June 2014. Anyone interested in further information about NH's care continuum is encouraged to contact Erin Metcalf at NH DHHS (erin.metcalf@dhhs.state.nh.us).

END NOTES

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APPENDIX A: DATA TABLES

Table A-1: NH county population (2012)

County	Count	Percent* (N=1,317,474)
Belknap	60,206	4.6%
Carroll	47,761	3.6%
Cheshire	77,106	5.9%
Coos	32,872	2.5%
Grafton	88,985	6.8%
Hillsborough	401,101	30.4%
Merrimack	146,742	11.1%
Rockingham	295,872	22.5%
Strafford	123,295	9.4%
Sullivan	43,534	3.3%

Source: American Community Survey 2008-2012 5-year estimates

* The estimate is controlled. A statistical test for sampling variability is not appropriate.

Table A-2: Region of birth, NH and US populations (2012)

Region of birth	NH (N=1,317,474)		US (N=309,138,711)	
	Count	Percent (90% CI)	Count	Percent (90% CI)
In US	1,247,849	94.7% (94.6, 94.8)	269,354,406	87.1% (87.0, 87.2)
Outside US	69,625	5.3% (5.2, 5.4)	39,784,305	12.9% (12.8, 13.0)

Source: American Community Survey 2008-2012 5-year estimates

Table A-3: Age group and gender, NH population (2012)

Age Group (years)	Males (n=650,048)		Females (n=667,426)		Total (N=1,317,474)	
	Count	Percent (90% CI)	Count	Percent (90% CI)	Count	Percent (90% CI)
<15	118,426	18.3% (18.2, 18.4)	112,656	16.9% (16.8, 17.0)	231,082	17.5% (17.4, 17.6)
15-19	47,698	7.3% (7.2, 7.4)	47,012	7.0% (6.9, 7.1)	94,710	7.2% (7.1, 7.3)
20-24	43,162	6.6% (6.5, 6.7)	41,182	6.2% (6.1, 6.3)	84,344	6.4% (6.3, 6.5)
25-29	37,263	5.7% (5.6, 5.8)	36,049	5.4% (5.3, 5.5)	73,312	5.6% (5.5, 5.7)
30-34	35,736	5.5% (5.4, 5.6)	36,222	5.4% (5.3, 5.5)	71,958	5.5% (5.4, 5.6)
35-39	39,253	6.0% (5.9, 6.1)	42,222	6.3% (6.1, 6.5)	81,475	6.2% (6.1, 6.3)
40-44	49,305	7.6% (7.4, 7.8)	48,429	7.3% (7.2, 7.4)	97,734	7.4% (7.3, 7.5)
45-49	55,317	8.5% (8.4, 8.6)	56,363	8.4% (8.3, 8.5)	111,680	8.5% (8.4, 8.6)
50+	223,888	34.4% (34.3, 34.5)	247,291	37.0% (36.9, 37.1)	471,179	35.7% (35.6, 35.8)

Source: American Community Survey 2008-2012 5-year estimates

Table A-4: Race/ethnicity, NH population (2012)

Race/Ethnicity	Count	Percent (90% CI) (N=1,317,474)
Non-Hispanic White	1,214,875	92.2% (92.1, 92.3)
Hispanic or Latino/a*	1,280,119	2.8%
Non-Hispanic Asian	28,594	2.2% (2.1, 2.3)
Non-Hispanic Black or African-American	14,289	1.1% (1.0, 1.2)
Non-Hispanic American Indian/Alaska Native	2,039	0.2% (0.1, 0.3)
Non-Hispanic Native Hawaiian/Pacific Islander	203	0.0% (0.0, 0.1)
Multi-racial	18,416	1.4% (1.3, 1.5)
Some other race	1,703	0.1% (0.0, 0.2)

Source: American Community Survey 2008-2012 5-year estimates

* The estimate is controlled. A statistical test for sampling variability is not appropriate.

Table A-5: Race/ethnicity by county, NH population (2012)

Race/ethnicity	Belknap (n=60,206)		Carroll (n=47,761)		Cheshire (n=77,106)		Coos (n=32,872)		Grafton (n=88,985)	
	Count	Percent (90% CI)	Count	Percent (90% CI)	Count	Percent (90% CI)	Count	Percent (90% CI)	Count	Percent (90% CI)
Non-Hispanic White	57,506	95.5% (95.3, 95.7)	46,207	96.7% (96.6, 96.8)	73,500	95.3% (95.2, 95.4)	31,596	96.1% (95.9, 96.3)	82,191	92.4% (92.3, 92.5)
Hispanic or Latino/a	770	1.3%	498	1.0%	1,119	1.5%	398	1.2%	1,641	1.8%
Non-Hispanic Asian	680	1.1% (0.9, 1.3)	250	0.5% (0.3, 0.7)	963	1.2% (1.1, 1.3)	123	0.4% (0.2, 0.6)	2,588	2.9% (2.7, 3.1)
Non-Hispanic Black or African-American	349	0.6% (0.4, 0.8)	63	0.1% (0.0, 0.2)	429	0.6% (0.5, 0.7)	186	0.6% (0.5, 0.7)	785	0.9% (0.7, 1.1)
Non-Hispanic American Indian/Alaska Native	81	0.1% (0, 0.2)	190	0.4% (0.2, 0.6)	234	0.3% (0.2, 0.4)	117	0.4% (0.3, 0.5)	270	0.3% (0.2, 0.4)
Non-Hispanic Native Hawaiian/Pacific Islander	0	—	0	—	0	—	0	—	6	0.0% (0.0, 0.1)
Multi-racial	757	1.3% (0.9, 1.7)	546	1.1% (0.8, 1.4)	829	1.1% (0.9, 1.3)	410	1.2% (1.0, 1.4)	1,450	1.6% (1.3, 1.9)
Some other race	63	0.1% (0.0, 0.2)	7	0% (0.0, 0.1)	32	0% (0.0, 0.1)	42	0.1% (0.0, 0.2)	54	0.1% (0.0, 0.2)

Race/ethnicity	Hillsborough (n=401,101)		Merrimack (n=146,742)		Rockingham (n=295,872)		Strafford (n=123,295)		Sullivan (n=43,534)	
	Count	Percent (90% CI)	Count	Percent (90% CI)	Count	Percent (90% CI)	Count	Percent (90% CI)	Count	Percent (90% CI)
Non-Hispanic White	351,250	87.6% (87.5, 87.7)	138,263	94.2% (94.1, 94.3)	278,258	94% (93.9, 94.1)	114,270	96.1% (95.9, 96.3)	41,834	96.1% (95.9, 96.3)
Hispanic or Latino/a	21,391	5.3%	2,408	1.6%	6,349	2.1%	2,276	1.8%	505	1.2%
Non-Hispanic Asian	13,368	3.3% (3.2, 3.4)	2,243	1.5% (1.4, 1.6)	5,109	1.7% (1.6, 1.8)	3,019	0.4% (0.2, 0.6)	251	0.6% (0.4, 0.8)
Non-Hispanic Black or African-American	7,750	1.9% (1.8, 2)	1,485	1.0% (0.9, 1.1)	2,042	0.7% (0.6, 0.8)	1,044	0.6% (0.5, 0.7)	156	0.4% (0.3, 0.5)
Non-Hispanic American Indian/Alaska Native	454	0.1% (0.0, 0.2)	144	0.1% (0.0, 0.2)	327	0.1% (0.0, 0.2)	160	0.4% (0.3, 0.5)	62	0.1% (0.0, 0.2)
Non-Hispanic Native Hawaiian/Pacific Islander	120	0.0% (0.0, 0.1)	26	0.0% (0.0, 0.1)	37	0.0% (0.0, 0.1)	0	—	14	0% (0.0, 0.1)
Multi-racial	5,941	1.5% (1.3, 1.7)	1,973	1.3% (1.1, 1.5)	3,535	1.2% (1.1, 1.3)	2,346	1.2%	629	1.4% (1.1, 1.7)
Some other race	827	0.2% (0.1, 0.3)	200	0.1% (0.0, 0.2)	215	0.1% (0.0, 0.2)	180	0.1% (0.0, 0.2)	83	0.2% (0.0, 0.4)

Table A-6: Educational attainment, NH and US adult populations, ages 25 or older (2012)

	NH (N=1,317,474)	US (N=309,138,711)
	Percent (90% CI)	Percent (90% CI)
High diploma or GED	91.4% (91.2, 91.6)	85.7% (85.6, 85.8)
College-level	33.4% (33.0, 33.8)	28.5% (28.4, 28.6)

Source: American Community Survey 2008-2012 5-year estimates

Table A-7: Persons reported with HIV/AIDS in NH, by county (2004-2013)

County	HIV		AIDS	
	Count	Percent	Count	Percent
Belknap	11	2.4%	7	2.3%
Carroll	7	1.5%	5	1.7%
Cheshire	11	2.4%	11	3.6%
Coos	6	1.3%	3	1.0%
Grafton	27	5.9%	19	6.3%
Hillsborough	201	44.2%	137	45.4%
Merrimack	65	14.3%	39	12.9%
Rockingham	72	15.8%	41	13.6
Strafford	43	9.5%	33	10.9%
Sullivan	8	1.8	7	2.3%
Unknown	4	0.9%	0	0.0%
Total	455		302	

Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

Table A-8: Persons living with HIV/AIDS by gender in NH (as of December 2013)

Gender	HIV		AIDS	
	Count	Percent	Count	Percent
Male	974	77.0%	525	76.2%
Female	291	23.0%	164	23.8%
Total	1265		689	

Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

Table A-9: Persons living with HIV/AIDS by race/ethnicity in NH (as of December 2013)

Race	HIV		AIDS	
	Count	Percent	Count	Percent
White	914	72.3%	485	70.4%
Black	163	12.9%	89	12.9%
Hispanic (any race)	147	11.6%	90	13.1%
Asian	14	1.1%	8	1.2%
Multi-racial	25	2.0%	17	2.5%
Unknown	2	0.2%	0	0.0%
Total	1265		689	

Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

Table A-10: Men who have sex with men (MSM) by race/ethnicity, age group, and county, NH (2010-2014)

Characteristics	MSM HIV Cases Reported (n=95)	
	COUNT	PERCENT
RACE/ETHNICITY		
White	79	83.2%
Hispanic	8	8.4%
Black or African American	4	—
Asian	1	—
American Indian/Alaska Native	0	—
Multiracial	3	—
AGE		
<13	0	—
13-19	3	—
20-24	17	17.9%
25-29	11	11.6%
30-34	12	12.6%
35-39	6	6.3%
40-44	9	9.5%
45-49	15	15.8%
50+	22	23.2%
COUNTY		
Belknap	1	—
Carroll	3	—
Cheshire	3	—
Coos	0	—
Grafton	9	9.5%
Hillsborough	37	39.0%
Merrimack	12	12.6%
Rockingham	18	19.0%
Strafford	9	9.5%
Sullivan	3	—

Source: New Hampshire enhanced HIV/AIDS Reporting System (eHARS) database

Table A-11: Illicit drug use other than marijuana in the past month, by age, NH (2011-2012)

	US	NH
	Percent (95% CI)	Percent (95% CI)
12 years or older	3.5% (2.8, 4.3)	3.3% (3.1, 3.4)
18 years or older	3.5% (2.7, 4.3)	3.2% (3.0, 3.4)

Source: 2011-2012 National Survey on Drug Use and Health