Epidemiologic Profile of HIV/AIDS in West Virginia 2006

WEST VIRGINIA Department of Health & Human Resources

Bureau for Public Health
Office of Epidemiology & Health Promotion
Division of Surveillance & Disease Control
350 Capitol Street, Room 125
Charleston, WV 25301

Joe Manchin III, Governor
Martha Yeager Walker, Secretary

Epidemiologic Profile of HIV/AIDS in West Virginia 2006*

Joe Manchin III
Governor

Martha Yeager Walker
Secretary, Department of Health and Human Resources

Chris Curtis, M.P.H.
Acting Commissioner, Bureau for Public Health

Cathy Slemp, M.D., M.P.H.
Acting State Health Officer, Bureau for Public Health

Joe Barker, M.P.A.
Director, Office of Epidemiology and Health Promotion

Loretta E. Haddy, PhD, M.A., M.S.
Director, Division of Surveillance and Disease Control

Caroline Williams, M.D.
Director, West Virginia HIV/AIDS/STD Program
350 Capitol Street, Room 125
Charleston, West Virginia 25301-3715

(304) 558-2950 or 1-800-642-8244
http://www.wvdhhr.org/idep/aids.htm

*This document was prepared in 2008, but contains data through December 2006.

West Virginia HIV/AIDS/STD Program

Caroline Williams, M.D. — **Director, HIV/AIDS/STD Program**
Susan Hall, M.A. — **Assistant Director**

(304) 558-2950 OR (800) 642-8244

HIV/AIDS Surveillance Staff

Mark Shahbandy	HARS Administrator
Kaluwa Hypes Schoen, R.N.	HIV/AIDS Surveillance Nurse
Vacant	HIV/AIDS Surveillance Nurse

HIV/AIDS Prevention Staff

Beverly Harmon	HIV/AIDS Program Secretary

HIV/AIDS Educators:

Chuck Anziulewicz	Media Relations, MSM
Nils Haynes	Minorities, Substance Abuse
Chuck Hall	Training Coordinator, Correctional Facilities
Jodie Waldron, M.S.	Women at Risk, Substance Abuse

STD Prevention/Surveillance Staff

Kenneth Gould	DIS Supervisor
Vicki Hogan, M.P.H.	HIV/AIDS/STD Program Epidemiologist
John Armstrong, M.P.H.	Disease Intervention Specialists (Region 1)
Vacant	Disease Intervention Specialists (Region 2)
Vacant	Disease Intervention Specialists (Region 3)
Dianna Ryan, M.A.	Disease Intervention Specialists (Region 4)
John Gundling	Disease Intervention Specialists (Region 5)
Matt Eakle	Disease Intervention Specialists (Region 6)
Chuck McConnell	Disease Intervention Specialists (Region 7)
Allan Zipf, M.S.	Disease Intervention Specialists (Region 8)
Barbara Thacker	STD Program Secretary
Sandra Graham, B.S., R.N.	Adult Viral Hepatitis C Prevention Coordinator
Vacant	Programmer
Betty Lou Slawter	Office Assisstant 3

Note: A map of DIS's assigned counties with their phone number is at the end of this document.

West Virginia Epidemiologic Profile of HIV/AIDS for Prevention and Care Planning

Please forward any comments or questions regarding this report to:

Loretta Haddy, PhD, M.A., M.S.
Director
Division of Surveillance and Disease Control
350 Capitol Street, Room 125
Charleston, West Virginia 25301-3715
(304) 558-5358 (800) 423-1271 E-mail: lorettahaddy@wvdhhr.org

Caroline Williams, M.D.
Director, HIV/AIDS/STD Program
West Virginia HIV/AIDS/STD Program
350 Capitol Street, Room 125
Charleston, West Virginia 25301-3715
(304) 558-2950 (800) 624-8244 E-mail: carolinewilliams@wvdhhr.org

Website: http://www.wvdhhr.org/idep/aids.htm

This document prepared by:
Mark Shahbandy, HARS Adminstrator

Contributing Editors:
Loretta Haddy, PhD, M.A., M.S., Director of DSDC
Caroline Williams, M.D.
Vicki Hogan, M.P.H.

Important Note:
All data in this document are provisional and may vary in time due to new cases that are received and/or lost to other states.

NOTICE TO HEALTH CARE PROVIDERS, LABORATORIES, AND OTHERS RESPONSIBLE FOR DISEASE REPORTING:

West Virginia Code §16-3C-8, §16-3-1et seq., and Legislative Rules 64CSR64, and 64CSR7 require that all positive HIV test results and all cases of AIDS as defined by the CDC must be reported to the West Virginia Bureau for Public Health. For information on the CDC AIDS case definition, to obtain case report forms, or to report a case, contact:

West Virginia HIV/AIDS/STD Program
350 Capitol Street, Room 125
Charleston, West Virginia 25301-3715
Telephone (304) 558-2950 or 1-800-642-8244

Executive Summary

Population of West Virginia

The population of West Virginia is less than 1% of the US population and more than 66% of West Virginia residents live in rural areas. The state has a population of 1.8 million and is rural with only five counties having a population of 50,000 or more. Kanawha County is the largest county reporting 200,000 residents. According to the 2000 U.S. Census, 95% of West Virginia residents are white, 3.2% are Black, and 1.8% are other races. Forty-nine percent of the population is males and 51% is females. West Virginia is comprised of 55 counties and 8 public health management districts. The median age of people living in West Virginia is 38.9 years with 22.3% 18 years and younger, and 15.3% 65 years and older. West Virginia is a low prevalence state for both Sexually Transmitted Diseases (STDs) and Human Immunodeficiency Virus (HIV) disease. Compared to U.S residents as a whole, West Virginia residents have lower incomes, higher unemployment rates, and are less educated.

Epidemiologic Trends in HIV/AIDS

At the end of 2006, a total of 1,387 persons were known to be living with HIV/AIDS in West Virginia, more than half (51%) of whom had a diagnosis of AIDS. A total of 60 new AIDS cases were reported in West Virginia, a 13% decline from the previous year. This decline has also been reported nationally. The reasons for the decline are varied and likely represent several factors including: variations in access to medical care, changes in HIV treatment effectiveness over time, expected progression of disease for higher number of individuals infected with HIV in the mid-1990s, and enhanced surveillance efforts to capture timely case reports.

West Virginia has witnessed a decline in the number of deaths of persons with AIDS since 1995. This may be attributed largely to the use of highly active antiretroviral therapy (HAART) which helps decrease the progression of HIV-associated immune deficiency. In 2006, 120 new individuals were reported with HIV/AIDS (HIV disease); the overall infection rate was 6.7 per 100,000 persons. In West Virginia, blacks were disproportionately affected compared to the general population. Black males and females were 3% of the general population, but 38% of HIV infection and 20% of AIDS reported cases. The rate of HIV infection is currently 11 times higher in the black population than in the white population.

Among men in all racial groups, male who have sex with male (MSM) is the predominant mode of exposure. In 2006, 73% of new reported HIV/AIDS cases in males were attributed to MSM and MSM/IDU (injecting drug use), while heterosexual contact accounted for only one percent. For women in all racial groups, high-risk heterosexual sex was the predominant mode of exposure. In 2006, 50% of HIV/AIDS reported cases in females were attributed to heterosexual contact, while injecting drug use accounted for 20%. During 2006, IDU was more prevalent among blacks with HIV/AIDS (20%) than whites (8%).

HIV/AIDS Care

In West Virginia six regional HIV care consortia, along with agencies and the state health department, provide Ryan White Care services to HIV infected/affected persons. A total of 99 Ryan White Title I, 634 Ryan White Title II, and 434 Ryan White Title III clients received or accessed funded services in 2006.

Tuberculosis co-infection with AIDS

In 2006, one individual was co-infected with AIDS and zero active Tuberculosis (TB) who lived out of state for many years and moved back to West Virginia just prior to diagnosis.

Sexually Transmitted Diseases and Viral Hepatitis

Information from West Virginia's STD and viral hepatitis surveillance systems provide an insight into high-risk behavior that can potentially lead to HIV infection. In 2006 there were 2,885 reported cases of Chlamydia, a 2% decline from the previous year. There were 939 reported cases of gonorrhea, about 21% increase from the previous year. The rates of Chlamydia among blacks were disproportionately higher than the rates of Gonorrhea among whites. Even though blacks were equally affected by both diseases, they have been disproportionately affected compared to whites in the past five years. High numbers of Chlamydia and Gonorrhea cases in older teens and young adults have been reported in recent years suggesting the persistence of unsafe sexual activity.

This is the first time that West Virginia is providing Viral Hepatitis data in the Epidemiologic Profile. In the past couple of years, the state has worked to improve Hepatitis surveillance and was able to establish a Hepatitis C registry in 2003. Injection Drug Use (IDU) is the predominant risk group for both Hepatitis C and HIV in West Virginia. Although the data shown is rudimentary, it is extremely valuable to HIV prevention and care.

Table of Contents

Executive Conclusions 5
Tables of Content 7
List of Tables 8
List of Figures 13
List of Maps 16
Introduction 18
Types and Sources of Data for Epidemiologic Profile 20
Technical Notes 23
Explanation of No Identified Risk (NIR) Cases 24

Section 1 (Core Epidemiologic Data) 25
1.1 West Virginia Demographic Data 26
1.2 Scope of the HIV/AIDS Epidemic in West Virginia 36
HIV/AIDS Epidemic in West Virginia by Districts and Characteristics, 2002-2006 58-74
1.3 HIV Infection in West Virginia 80
1.4 Indicators of risk for HIV/AIDS Epidemic in West Virginia 98
1.5 Partner Counseling and Referral Services (PCRS) 111
1.6 HIV Counseling and Testing 114
Summary of West Virginia OLS HIV Lab Screening Results, 2001-2005 118-133

Section 2 (Tuberculosis) 137
2.1 Tuberculosis in West Virginia 138

Section 3 (HIV/AIDS Treatment and Care) 146
3.1 Summary of HIV/AIDS Treatment and Care in West Virginia 147
3.2 Impact of AIDS in West Virginia 148
3.3 Ryan White HIV/AIDS Care Act and Other Services 150
Ryan White Title I, II, and III HIV Care and Other Services 160

Section 4 (Sexually Transmitted Diseases other than HIV/AIDS) 162
4.1 Impact of Sexually Transmitted Diseases other than HIV/AIDS in West Virginia 163

Section 5 (Reported Acute Hepatitis B and C Cases) 173
5.1 Distribution of Acute Hepatitis B Cases 174
5.2 Distribution of Acute Hepatitis C Cases 177

Apendix 180
West Virginia Ryan White Part B Program Regional Contacts 181
A Glance at the HIV Epidemic 186-189
Glossary of Terms 190

List of Tables

Table 1.1: West Virginia Population by Gender, Age Graoup, and Race, 1990 vs 2000 28

Table 1.2: West Virginia Percent Population by Race and Public Health District, 2000 29

Table 1.3: Top Three West Virginia Counties with Highest Percentage of Non-White Population, 2000 32

Table 1.4a-1.4b: West Virginia Population by Race, County, and District, 2000 33-34

Table 1.5: West Virginia Population by County and Age Group, 2000 35

*****

Table 2.1: West Virginia AIDS Cases by Year of Report and Diagnosis, 1984 - 2006 37

Table 2.2: Comparison of Total AIDS Cases, by Age Group, Race, Sex, Risk Behavior, and Year of Report,1984 - 2006 38

Table 2.3: West Virginia Comparison of AIDS and HIV infection Cases, and Number of PLWHA by Year of Report, AIDS 1984-2006, HIV 1989-2006 39

Table 2.4: West Virginia HIV/AIDS Case by Age Group and Year of Report, 2002-2006 40

Table 2.5: West Virginia HIV/AIDS Case by Gender and Year of Report, 2002-2006 40

Table 2.6: West Virginia HIV/AIDS Case by Race and Year of Report, 2002-2006 41

Table 2.7: West Virginia HIV/AIDS Case by Risk Behavior and Year of Report, 2002-2006 41

Table 2.8: West Virginia HIV/AIDS Case by Age Group and Gender, 2006 42

Table 2.9: West Virginia HIV/AIDS Case by Race and Gender, 2006 42

Table 2.10: West Virginia HIV/AIDS Case by Risk Behavior and Gender, 2006 43

Table 2.11: West Virginia HIV/AIDS Case by Risk Behavior and Race, 2006 44

Table 2.12: West Virginia AIDS Case Among Men who have Sex with Men by Age Group, 1992-95, 1997-01, 2002-06 45

Table 2.13: West Virginia AIDS Cases Among Men who have Sex with Men by Race, 1992-96, 1997-01, 2002-06 45

Table 2.14: West Virginia AIDS Cases Among Injecting Drug Users by Age Group, 1992-96, 1997-01, 2002-06 46

Table 2.15: West Virginia AIDS Cases Among Injecting Drug Users by Gender, 1992-96, 1997-01, 2001-06 46

Table 2.16: West Virginia AIDS Cases Among Injecting Drug Users by Race, 1992-96, 1997-01, 2002-06 46

Table 2.17: West Virginia AIDS Cases Among Persons with Heterosexual Contact by Age Group, 1992-96, 1997-01, 2002-06 47

Table 2.18: AIDS Cases Among Persons with Heterosexual Contact by Gender, West Virginia, 1992-96, 1997-01, 2002-06 47

Table 2.19: AIDS Cases Among Persons with Heterosexual Contact by Race, West Virginia, 1992-96, 1997-01, 2002-06 47

Table 2.20: West Virginia AIDS Cases by Age Group and Gender, 1984-2006 48

Table 2.21: West Virginia AIDS Cases by Age Group and Race, 1984-2006 49

Table 2.22: West Virginia AIDS Cases by Risk Behavior and Gender, Five-Year Aggregates of Data, 2002-2006 50

Table 2.23: West Virginia AIDS Cases Among Males by Risk Behavior and Race, 2002-2006 53

Table 2.24: West Virginia AIDS Cases Among Females by Risk Behavior and Race, 2002-2006 54

Table 2.25: Comparison of Total AIDS & HIV Infection Cases and No. of People Living with HIV/AIDS by District, AIDS 1984-2006, HIV 1989-2006 55

Table 2.26: West Virginia AIDS Cases Comparison by Public Health District, Age Group, Race Gender, and Risk Behavior, 1984-2006 56

Table 2.27: West Virginia People Living With HIV/AIDS Comparison by Public Health District, Age Group, Race, Gender, and Risk Behavior, AIDS 1984-2006, HIV 1989-2006 57

Table 2.28: West Virginia HARS and OLS Data Comparison by Districts, 2002-2006 58

Table 2.29: West Virginia HARS Data by Districts, 2002-2006 58

Table 2.30-2.45: West Virginia HARS Data by Age Group, Race Gender, Risk Behavior, and Districts, 2002-2006 59-74

*****

Table 3.1: Comparison of West Virginia HIV Infection Cases by Year of Report, 1989-2006 81

Table 3.2: Comparison of Total AIDS and HIV Infection Cases and Number of People Living with HIV/AIDS by Year of Report, AIDS 1984-2006, HIV 1989-2006 82

Table 3.3: Comparison of Total HIV Infection Cases, by Age Group, Race, Sex, Risk Behavior and Year of Report, 2002-2006 83

Table 3.4: West Virginia HIV Infection Cases Among MSM by Age Group, 1989-2006 84

Table 3.5: West Virginia HIV Infection Cases Among MSM by Race, 1989-2006 84

Table 3.6: West Virginia HIV Infection Cases Among IDU by Age Group, 1989-2006 85

Table 3.7: West Virginia HIV Infection Cases Among IDU by Gender, 1989-2006 85

Table 3.8: West Virginia HIV Infection Cases Among IDU by Race, 1989-2006 85

Table 3.9: West Virginia HIV Infection Cases Among Heterosexual Contact by Age Group, 1989-2006 86

Table 3.10: West Virginia HIV Infection Cases Among Heterosexual Contact by Gender, 1989-2006 . 86

Table 3.11: West Virginia HIV Infection Cases Among Heterosexual Contact by Race, 1989-2006 86

Table 3.12: West Virginia HIV Infection Cases by Age Group and Gender, 1989-2006 87

Table 3.13: West Virginia HIV Infection Cases by Age Group and Race, 1989-2006 88

Table 3.14: West Virginia HIV Infection Cases by Risk Behavior by Gender, Five-Year Aggregates of Data, 1992-95, 1997-01, and 2002-06 88

Table 3.15: HIV Infection Cases Among Males by Risk Behavior and Race, 2002-2006 93

Table 3.16: HIV Infection Among Females by Risk Behavior and Race, 2002-2006 93

Table 3.17: West Virginia HIV Infection Cases Comparison by Public Health District, Age Group, Race Gneder, and Risk Behavior, 1989-2006 94

*****

Table 4.1: West Virginia HIV/AIDS Cases by Risk Behavior and Gender, 2002-2006 100

Table 4.2: West Virginia AIDS and HIV Infection Cases by Age Group, Gender, Race, and Risk Behavior, Cumulative through 2006 101

Table 4.3: West Virginia People Living With HIV/AIDS by Age Group, Gender, Race, and Risk Behavior, AIDS 1984 - 2006, HIV 1989-2006 102

Table 4.4: West Virginia AIDS and HIV Infection Cases by Age Group and Gender, Cumulative through 2005 (AIDS 1984-2005, HIV 1989-2005) 104

Table 4.5: West Virginia People Living With HIV/AIDS by Age Group and Gender, AIDS 1984 - 2006, HIV 1989-2006 103

Table 4.6: West Virginia AIDS and HIV Infection Cases by Age Group and Race, Cumulative through 2006 (AIDS 1984-2006, HIV 1989-2006) 104

Table 4.7: West Virginia PLWHA by Age Group and Race, AIDS 1984-2006, HIV 1989-2006 104

Table 4.8: West Virginia AIDS and HIV Infection Cases by Risk Behavior and Race, Cumulative through 2006 (AIDS 1984-2006, HIV 1989-2006) 105

Table 4.9: West Virginia PLWHA by Risk Behavior and Race, AIDS 1984-2006, HIV 1989-2006 ... 105

Table 4.10: Comparison of Total AIDS and HIV Infection Cases and Number of PLWHA by Year of Report, AIDS 1984-2006, HIV 1989-2006 106

Table 4.11: Comparison of Total AIDS and HIV Infection Cases, Cumulative and Alive by Age Group, AIDS 1984 - 2006, HIV 1989-2006 107

Table 4.12: Comparison of Total AIDS and HIV Infection Cases, Cumulative and Alive by Gender, AIDS 1984-2006, HIV 1989-2006 108

Table 4.13: Comparison of Total AIDS and HIV Infection Cases, Cumulative and Alive by Race, AIDS 1984-2006, HIV 1989-2006 109

Table 4.14: Comparison of Total AIDS and HIV Infection Cases, Cumulative and Alive by Risk Behavior, AIDS 1984-2006, HIV 1989-2006 110

*****

Table 5.1: Partner Counseling and Referral Services 2006 113

*****

Table 6.1: HIV Testing at AIDS Prevention Centers by District, West Virginia, 2004-2006 115

Table 6.2: West Virginia HIV Tests at APCs by Gender, Race, and Risk Behavior, 2006 116

Table 6.3: West Virginia HIV Testing at APCs Public Health District Comparison by Age Group, Race, Gender, and Risk Behavior, 2006 117

Table 6.4: West Virginia HIV Testing at APCs Public Health District Comparison, 2002-2006 118

Table 6.5-6-20: West Virginia OLS HIV Screening by Age Group, Race, Gender, Risk Behavior, and District, 2002-2006 119-134

*****

Table 7.1: Matching of Tuberculosis and AIDS Cases in West Virginia, 1984-2006 139

Table 7.2: Tuberculosis Mortality Rates in West Virginia per 100,000 Population, 1984-2006..... 143

*****

Table 8.1: West Virginia AIDS Cases Comparison by Race, Gender, and Year of Report, 2002-2006 148

Table 8.2: West Virginia AIDS Cases Comparison by Race and Year of Report, 2002-2006 148

Table 8.3: Services Provided and No. of Clients Served by Ryan White Title I, II, and III, 2006 158

Table 8.4: Services Provided and No. of Clients Served by Ryan White Title I, II, and III, by Age Group, Gender, and Race, 2006 159

Table 8.5: No. of Clients Served by Ryan White Title I, II, and III, by Household Income, Housing, Medical Insurance, HIV/AIDS Status, and Clients' Vital/Enrollment Status, 2006 160

*****

Table 9.1: West Virginia Chlamydia Cases and Rates per 100,000 Population by Race and Year of Report, 2002-2006 165

Table 9.2: West Virginia Gonorrhea Cases and Rates per 100,000 Population by Race and Year of Report, 2002-2006 165

Table 9.3: West Virginia Chlamydia and Gonorrhea Cases and Rates per 100,000 Population Among 15-19 Age Group, 2002-2006 165

Table 9.4: West Virginia Chlamydia Cases by Public Health District, Percentage of Total Cases Reported, 2002-2006 167

Table 9.5: West Virginia Gonorrhea Cases by Public Health District, Percentage of Total Cases Reported, 2002-2006 167

Table 9.6: West Virginia Chlamydia Cases by Race(White and Non-White) and Public Health District, 2006 168

Table 9.7: West Virginia Gonorrhea Cases by Race(White and Non-White) and Public Health District, 2006 168

Table 9.8: West Virginia Syphilis Cases by Public Health District, 2002-2006 169

Table 11.1: Directory of Surveillance and Prevention Staff 184

*****

List of Figures

Figure 1.1: West Virginia Population by Age Group, 1990 vs 2000 28

Figure 1.2: U.S. and West Virginia Percent Population Comparison by Race, 2000 34

*****

Figure 2.1: AIDS Rates in West Virginia by Year of Report, 1984-2006 37

Figure 2.2: West Virginia HIV/AIDS Cases and Deaths by Year of Report, 1984-2006 39

Figure 2.3: West Virginia AIDS Cases Among MSM by Age Group, 1989-2006 45

Figure 2.4: West Virginia AIDS Cases Among MSM by Race, 1989-2006 45

Figure 2.5: West Virginia AIDS Cases Among IDU by Race, 1989-2006 46

Figure 2.6: West Virginia AIDS Cases Among Hetrosexual Contact by Race, 1989-2006 47

Figure 2.7: West Virginia AIDS Cases by Age Group and Gender, 1984-2006 48

Figure 2.8: West Virginia AIDS Cases by Age Group and Race, 1984-2006 49

Figure 2.9: West Virginia AIDS Cases by Risk Behavior, 2002-2006 50

Figure 2.10: West Virginia AIDS Cases Among Males by Risk Behavior, 2002-2006 51

Figure 2.11: West Virginia AIDS Cases Among Females by Risk Behavior, 2002 2006 51

Figure 2.12: West Virginia AIDS Cases Among Whites by Risk Behavior, 2002-2006 52

Figure 2.13: West Virginia AIDS Cases Among Blacks by Risk Behavior, 2002-2006 52

Figure 2.14: West Virginia AIDS Cases Among Males by Risk Behavior and Race, 2002-2006 53

Figure 2.15: West Virginia AIDS Cases Among Females by Risk Behavior and Race, 2002-2006 54

Figure 2.16: West Virginia Percent of AIDS and HIV Infection and Number of People Living with HIV/AIDS by Public Health District, AIDS 1984-2006, HIV 1989-2006 55

*****

Figure 3.1: HIV Cases in West Virginia by Year of Report, 1989-2006 81

Figure 3.2: West Virginia HIV Infection Cases Among MSM by Race, 1989-2006 84

Figure 3.3: West Virginia HIV Infection Cases Among MSM by Age Group, 1989-2006 84

Figure 3.4: West Virginia HIV Infection Cases Among IDU by Race, 1989-2006 85

Figure 3.5: West Virginia HIV Infection Cases Among Hetrosexual Contact by Race, 1989-2006 86

Figure 3.6: West Virginia HIV Infection by Age Group and Gender, 1989-2006 87

Figure 3.7: West Virginia HIV Infection by Age Group and Race, 1989-2006 88

Figure 3.8: West Virginia HIV Infection Cases by Risk Behavior, 1989-2006 89

Figure 3.9: West Virginia HIV Infection Cases Among Males by Risk Behavior, 1989-2006 90

Figure 3.10: West Virginia HIV Infection Cases Among Females by Risk Behavior, 1989-2006 90

Figure 3.11: West Virginia HIV Infection Cases Among Whites by Risk Behavior, 1989-2006 91

Figure 3.12: West Virginia HIV Infection Cases Among Blacks by Risk Behavior, 1989-2006 91

Figure 3.13: West Virginia HIV Infection Cases Among Males
by Risk Behavior and Race, 2002-2006 93

Figure 3.14: West Virginia HIV Infection Cases Among
Females by Risk Behavior and Race, 2002-2006 93

*****

Figure 4.1: West Virginia AIDS and HIV Infection Cases and
Number of PLWHA, AIDS 1984-2005, HIV 1989-2006 106

Figure 4.2: West Virginia AIDS Cases by Age Group, 1984-2006 107

Figure 4.3: West Virginia HIV Infection Cases by Age Group, 1989-2006 107

Figure 4.4: West Virginia AIDS Cases by Gender, 1984-2006 108

Figure 4.5: West Virginia HIV Infection Cases by Gender, 1989-2006 108

Figure 4.6: West Virginia AIDS Cases by Race, 1984-2006 109

Figure 4.7: West Virginia HIV Infection Cases by Race, 1989-2006 109

Figure 4.8: West Virginia AIDS Cases by Risk Behavior, 1984-2006 110

Figure 4.9: West Virginia HIV Infection Cases by Risk Bahavior, 1989-2006 110

*****

Figure 6.1: West Virginia Male Anonymous HIV Tests by Race, 2006 115

Figure 6.2: West Virginia Male Confidential HIV Tests by Race, 2006 115

Figure 6.3: West Virginia Female Anonymous HIV Tests by Race, 2006 115

Figure 6.4: West Virginia Female Confidential HIV Tests by Race, 2006 115

Figure 6.5: West Virginia HARS HIV/AIDS Reported Cases by District, 2002-2006 135

Figure 6.6: West Virginia OLS HIV Screening by District, 2002-2006 135

*****

Figure 7.1: West Virginia Tuberculosis Mortality Rates, 1984-2006 143

Figure 7.2: West Virginia Tuberculosis Cases by Age Group, West Virginia, 2002-2006 144

Figure 7.3: Tuberculosis Incidence Rates by Year of Report, West Virginia and U.S., 1970-2006 144

Figure 7.4: West Virginia Tuberculosis Cases by Gender and Year of Report, 2002-2006 145

Figure 7.5: West Virginia Tuberculosis Cases by Race and Year of Report, 2002-2006 145

*****

Figure 8.1: West Virginia AIDS Cases first Reported as HIV Infection and as AIDS Cases, 1994-2006 149

*****

Figure 9.1: West Virginia Chlamydia Cases by Year of Report, 1987-2006 166

Figure 9.2: West Virginia Gonorrhea Cases by Year of Report, 1987-2006 166

*****

Figure 10.1: West Virginia Acute Hepatitis B Cases by Year of Report, 2002-2006 175

Figure 10.2: West Virginia Risk Factors for Acute Hepatitis B, 2002-2006 176

Figure 10.3: West Virginia Acute Hepatitis B Cases by Year of Report, 2002-2006 178

*****

List of Maps

Map 1.1: West Virginia Distribution of Percent Population by District, 2000 29
Map 1.2: West Virginia Estimated Poverty Rates by County, 2003 30
Map 1.3: West Virginia Estimated Poverty Rates by District, 2003 30
Map 1.4: West Virginia Median Household Income by County, 2003 31
Map 1.5: West Virginia Median Household Income by District, 2003 31
Map 1.6: West Virginia Distribution of Percent Population by County, 2000 32

*****

Map 2.1: Distribution of AIDS Cases by District, WV, 1984-2006 76
Map 2.2: Distribution of AIDS Rates by District, WV, 2006 77
Map 2.3: Distribution of PLWHA by District, WV, 2006 77
Map 2.4: Distribution of HIV Infection and AIDS Cases by Year of Report, WV, 2002-2006 78
Map 2.5: Distribution of AIDS Cases by County, West Virginia, 1984-2006 79

*****

Map 3.1: Distribution of HIV Infection Cases by District, West Virginia, 1989-2006 95
Map 3.2: Distribution of HIV Infection Rates by District, West Virginia, 2006 96
Map 3.3: Distribution of HIV Infection Cases by County, West Virginia, 1989-2006 97

*****

Map 6.1: Distribution of HIV Lab Results from APCs by District, WV, 2002-2006 136
Map 6.2: Distribution of HIV Lab Testing from OLS by District, WV, 2002-2006 137

*****

Map 7.1: Distribution of Tuberculosis Cases by County, WV, 2006 139

*****

Map 9.1: Distribution of Chlamydia Cases by District, WV, 2002-2006 170
Map 9.2: Distribution of Gonorrhea Cases by Public Health District, WV, 2002-2006 171
Map 9.3: Distribution of Syphilis Cases by Public Health District, West Virginia, 2002-2006 172

*****

Map 10.1: Distribution of Acute Hepatitis B Cases by District, WV, 2002-2006 174
Map 10.2: Distribution of Acute Hepatitis C Cases by District, WV, 2002-2006 177

*****

Map 11.1: Regions for Disease Intervention Specialists(DIS) WV HIV/AIDS/STD Program, 2006 181
Map 11.2: Regions for Surveillance Nurses WV HIV/AIDS/STD Program, 2006 182
Map 11.3: West Virginia Ryan White Part B Program Regional Contacts 183

Introduction

Introduction

The 2004 West Virginia HIV/AIDS Epidemiologic Profile describes the HIV (Human Immunodeficiency Virus), AIDS (Acquired Immune Deficiency Syndrome), and STD (Sexually Transmitted Disease) epidemics among various populations in West Virginia. The majority of the data presented are taken from HARS (HIV and AIDS Reporting System) and STD-MIS (Sexually Transmitted Diseases Management Information System) surveillance systems maintained by the HIV/AIDS/STD Program. Other appropriate sources have also been integrated in the analysis and discussion.

The Epidemiologic Profile content reflects a broad spectrum of information about STDs to support the integrated activities of the HIV/AIDS/STD Program. It seeks to add information to existing knowledge concerning HIV/AIDS and other STD incidence in West Virginia. In addition to prevention activities, the HIV/AIDS/STD Program facilitates several key HIV/AIDS care and service programs across the state. Profile information on HIV/AIDS care and services for patients can assist various community planning groups in assessing the need to provide or expand services in their service area. Overall information in the profile is displayed or organized by public health management districts.

The HIV/AIDS epidemiologic profile is a document that describes the impact of this epidemic on West Virginians in terms of sociodemographic, geographic, behavioral, and clinical characteristics. The epidemiologic profile is a valuable tool that is used at the national, state and local levels by planners and providers working to prevent and reduce the spread of HIV in West Virginia.

The two federal agencies that use HIV/AIDS epidemiologic and surveillance data are the Centers for Disease Control and Prevention (CDC) and the Health Resources and Services Administration (HRSA). Both agencies provide guidance and funding for programs for persons living with HIV/AIDS. The goals of these programs are to prevent HIV infections and, for those who are infected, to promote testing, care, and treatment.

This profile is divided into three sections. Section I describes general population demographics and social characteristics, the HIV epidemic, and indicators of HIV transmission risk in West Virginia. Section II describes HIV/AIDS treatment and care in West Virginia. Section III describes the epidemic and the impact of other bacterial STDs in West Virginia including syphilis, chlamydia, and gonorrhea. Section IV describes the epidemic and the impact of hepatitis B and hepatitis C in West Virginia.

Throughout the profile, the following questions are addressed:

- What are the socio-demographic characteristics of the general population in West Virginia?
- What is the scope of the HIV/AIDS and STD epidemics in West Virginia?
- What is the impact of AIDS in West Virginia?
- What are Ryan White HIV/AIDS Care Act and Other Services?

West Virginia is a low prevalence state for HIV/AIDS. The HIV and STD epidemics in West Virginia are similar in many ways to the same populations in other low prevalence states. Public health

activities at the state level aimed at controlling HIV/AIDS/STD epidemics have been integrated to make optimal use of limited resources.

This year, CDC and HRSA jointly introduced newly integrated guidelines for developing epidemiologic profile. The purpose of the new guidelines was to help health departments in the creation of an integrated epidemiologic profile that is useful, standardized, and consistent in meeting the planning needs of prevention and care programs. The West Virginia 2005 epidemiologic profile was drafted and completed according to these guidelines.

HIV and AIDS surveillance is in a new era because of treatment with protease inhibitors and new combination drug therapies. These treatments make it possible for HIV infection to remain asymptomatic, therefore, the number of AIDS cases and AIDS related deaths have declined since 1996.

People who are HIV positive, without any treatment, will consequently progress to AIDS. For some people, this progression may take a long time; up to ten years or more. Therefore, the aggregate data for AIDS cases may not be helpful enough for HIV education and prevention planning. The data characterizes people who were infected up to ten years ago, which sometimes makes it difficult to collect accurate information about the individuals and their partners for surveillance purposes.

An active surveillance system is very important in understanding the epidemiology of a disease, its cause, transmission mode, and distribution of cases over time and geographical location. Active surveillance involves a variety of techniques to obtain cases, including but not limited to death certificate review, TB registry matches, and hospital records reviews. HIV and AIDS data are collected through both passive and active surveillance. Passive surveillance refers to AIDS cases and HIV infections that are submitted to the West Virginia AIDS Program as required by West Virginia State Law. Active surveillance is chart review and gathering of the case reports by surveillance epidemiologists from health care providers, hospitals, and laboratories. Additionally, active follow-up is conducted on each case reported passively to ensure accuracy and completeness.

Types and Sources of Data for Epidemiologic Profile

In order to properly understand and interpret this profile, it is important to consider the source of data, limitations when analyzing and evaluating identified trends and patterns. Types and sources of data collection vary in methods and completeness. Following are the main sources of data used in this profile.

1. Core HIV/AIDS Surveillance Data

By state law, morbidity reports of HIV and AIDS from health providers are submitted to the state health department on confidential case report forms. These surveillance case reports include demographic and clinical information for the patient as well as risk behavior, lab results, and vital status. These case reports are maintained at the state's HIV/AIDS/STD Program, which uses CDC developed software called HARS surveillance system. In addition to providers, laboratories that provide HIV/AIDS testing must also report HIV positive results directly to the state health department.

Diagnosis of AIDS became reportable in West Virginia in April 1,1984. The AIDS surveillance system was established to:

- Monitor incidence and the demographic profile of AIDS
- Describe the modes of HIV transmission among persons with AIDS
- Guide the development and implementation of public health intervention and prevention programs
- Assist in the evaluation of the efficacy of public health interventions

State health departments, through active surveillance, solicit disease reports from health care providers, laboratories, and other sources. Standardized case report forms are used to collect sociodemographic information, mode of exposure, testing history, and clinical information. According to CDC, AIDS surveillance has been determined to be more than 85% complete.

Diagnosis of HIV infection (name-based) was made reportable in January 1, 1989. HIV surveillance data include all persons who meet the 1993 case definition for HIV infection and have been reported to the state health department. HIV surveillance data:

- Provide a minimum estimate of the number of persons with a diagnosis of HIV infection whose test was confidential
- Identify emerging patterns of transmission
- Help detect trends in HIV infections among populations of particular interest (e.g., children, adolescents, women) that may not be evident from AIDS surveillance data

HIV surveillance data also provide a basis for establishing and evaluating linkages to the provision of prevention and early intervention services. They can be used to anticipate unmet needs for HIV care. According to state evaluations, HIV infection reporting is estimated to be 80%–90% complete for persons who have tested positive for HIV.

HIV and AIDS Surveillance data may not provide reliable information about newly acquired infections, because there may be a significant delay: a) between infection and testing, b) between testing and reporting.

2. STD Surveillance Data from STD-MIS

a. STD Surveillance Data

Similar to other communicable diseases, diagnoses of certain bacterial STDs in West Virginia must be reported to local health and state health department. The HIV/AIDS/STD Program is responsible for receiving and collecting surveillance reports for Chlamydia, Gonorrhea, Syphilis, Pelvic Inflammatory Disease (PID), Non-Gonococcal Urethritis (NGU), Chancroid, Granuloma inguinale, and lymphogranuloma venereum. Information on all these diseases except hepatitis B are maintained in a CDC provided electronic surveillance system called STD-MIS (STD Management Information System). Information collected contains complete demographic and clinical information for each person diagnosed with a STD. Surveillance reports about STDs are generated regularly to assist the program director and epidemiologist in monitoring morbidity and planning for prevention.

b. Partner Counseling and Referral System (PCRS)

The HIV/AIDS/STD Program's Disease Intervention Specialists(DIS) have responsibility for conducting patient interviews of persons diagnosed with HIV in West Virginia. The interviews are conducted to counsel patients on prevention of risky life style, help with partner notification, and assist with referrals for treatment and services. This program is referred to as the Partner Counseling and Referral System (PCRS). Information for each patient is collected which includes clinical status, treatment, demographics, and mode of exposure. The information is maintained in stand-alone computer, in STD-MIS and referred to as PCRS Information System.

3. HIV Counseling and Testing Data

The HIV/AIDS/STD Program of West Virginia supports HIV testing and counseling through its 19 AIDS Prevention Centers (APCs). These centers offer confidential and anonymous HIV testing to at risk populations. The West Virginia Office of Laboratory Services (OLS) test specimens received from all of these centers. HIV testing sites are available across the state at 52 county health departments and 11 community-based organizations (CBOs). Along with test results, information is collected about risk behaviors and reasons for testing. Results and information from counseling and testing data reflect the characteristics of the testing population and may not be applicable to other populations.

4. Vital Statistics Data

The West Virginia Vital Statistics is a consortium of state and local agencies established in cooperation with the U.S. Bureau of the Census to provide the public with data about West Virginia and its component geographic areas. All births, deaths, fetal deaths, marriages, and divorces that occur in West Virginia are reported to the state Health Statistic Center. The process involves a statewide system of hospitals, funeral directors, registers of deeds, local health department staff, and others who register vital events. Statewide vital events are registered and maintained by the Vital Registration program of the Office of Epidemiology and Health Promotion(OEHP). Vital Registration program staff code information according to guidelines in order to produce Vital Statistics Publications that provides a broad range of information about population, births, deaths, marriages, and divorces among West Virginia residents, including many county-level breakouts. These publications are subsequently used to characterize specific areas such as infectious disease and infant mortality. Reporting of birth and deaths is nearly 100 percent complete. Death information includes the cause and underlying causes of death, but some causes of deaths, including HIV/AIDS, may not be accurately reported.

5. Population Data

The U.S. Census Bureau completed an official tabulation of the national population in 2000. The data are used to provide socio-demographics and socio-economic information about the people and economy of the United States. Questionnaires were sent to all households, most often by mail but in some cases in person by U.S. Census personnel. Making questionnaires available in different languages, advertising campaigns, and canvassing door-to-door were employed in order to maximize the census count. According to the U.S. Census Bureau, the final response rate for the entire U.S. population in 2000 was 67 percent. Data available include population counts and demographics for the state and counties. Information is also available on a wide varities of venues such as family structure, education, poverty level, income level, and housing status.

6. Ryan White CARE Act Data

In 1990, Congress enacted the Ryan White CARE Act to provide funding for states, territories and eligible metropolitan areas (EMAs) to offer primary medical care and support services for persons living with HIV disease who lack health insurance and financial resources. The state administers the Title II program and provides funding for services to care consortia and other local service providers. The purpose of Title II funding is to improve the quality, availability, and organization of health care and support services for individuals and families with, or affected by, HIV disease in each state or territory. Some Title II-funded services in West Virginia are administered and provided through six regional consortia. Data about CARE Act services is generated from summary reports prepared by HIV Care consortia and data collected in a HRSA sponsored software program called CAREWare and other computer softwares.

Technical Notes / Limitations

While reviewing this report, please keep in mind the following:

- Data available are limited to HIV infection and AIDS case reports that have been received by the West Virginia Division of Surveillance and Disease Control (DSDC). It does not reflect HIV infections or AIDS cases that have gone undetected or that are not identifiable through active surveillance. Data are only as good as the completeness of reporting by providers.

- The HIV reported data are not as representative of the HIV population as are the AIDS reported data compared with the AIDS population. The CDC estimates that at least one-third of Americans infected with HIV are unaware of their infection because they have not been tested and are thus unreported.

- West Virginia data most often reflect the year a case was reported. Often when a case is reported to the DSDC, a surveillance staff nurse goes to the hospital or clinic to review the chart and may identify an AIDS-defining event which occurred at an earlier time, possibly even years earlier. The date of diagnosis is usually earlier than the date of the report.

- Individuals are included in either the HIV or AIDS data set, but not both. HIV infection cases later reported with AIDS are deleted from HIV infection tables and added to the AIDS tables.

- HIV infection and AIDS cases are counted in the state of residence at the time of diagnosis. Therefore, West Virginia figures do not reflect cases diagnosed out of state before moving to West Virginia or living in the surrounding states and receiving services in state.

- In order to ensure confidentiality, persons of Hispanic, Asian, Pacific Islander, American Indian, or Alaskan Native ethnicities are collapsed into the "Other" category where race data are reviewed.

- Percent columns in tables and charts may not add up to 100% due to rounding.

- The rates given in this document were calculated using the year 2000 population figure from the U.S. Bureau of the Census.

Explanation of No Identified Risk (NIR) Cases

No Identified Risk (NIR) according to CDC, are cases for which epidemiologic and surveillance follow-up has been conducted, sources of data have been reviewed; which may include interviews with provider or patient; and no mode of exposure can be identified. All cases that have no risk behaviors for more than 12 months are reported as NIR.

Although 115 AIDS cases reported in this document have NIR (8%, 115 cases), it must be explained that this does not support a concern for an unknown risk behavior. There have been 205 NIR's collected in West Virginia at initial reporting from 1984 to 2006. Of these 205, 115 were reclassified after surveillance follow-up and investigations because no risk could be identified after interviews were declined or failed to uncover a mode of exposure, or cases were closed due to being lost to follow-up, or death. Of the remaining 90, 88 risks were found after surveillance follow-up and investigations, two are still open and being investigated. The lack of an identified risk may be explained by the CDC 1993 surveillance case definition change. For example, individuals who are HIV positive and found to have an initial CD4+ cell count test result <200 or <14% may be included as an AIDS case sooner in the course of disease than individuals diagnosed with opportunistic infections (OI). AIDS cases with OI's may have been receiving health care longer, thus allowing more time to counsel the patient and identify risk.

HIV NIR's for both males and females are higher than desired. A high percentage of NIR (16%, 118 cases) indicates that people with HIV infection are initially reluctant to reveal their risk behavior or do not know the HIV status of their high risk behavior partners. There were 174 HIV NIR's collected in West Virginia at initial reporting from 1989 to 2006. Of these 186, 118 were reclassified after surveillance follow-up and investigations because no risk could be identified after interviews were declined or failed to uncover a mode of exposure, or cases were closed due to being lost to follow-up, or death. Of the remaining 68, all risks were found after surveillance follow-up and investigations.

The following categories are used regarding the status of NIR:

- OPEN, ACTIVE FOLLOW-UP: investigation is in progress.
- RECLASSIFIED: investigation is completed.
- MOVED OUT OF STATE: investigation unable to be completed because person with HIV/AIDS moved out of state.
- CLOSED, DEAD: investigation completed; no interview conducted due to death of the person with HIV/AIDS, and no appropriate proxy to interview.
- CLOSED, DECLINED INTERVIEW: investigation completed; no interview conducted because person with HIV/AIDS or his/her physician declined interview.
- CLOSED, LOST TO FOLLOW-UP: investigation unable to be completed because person with HIV/AIDS was lost to follow-up.
- CLOSED, CDC RISK ASCERTAINMENT QUESTIONNAIRE COMPLETED and mailed to CDC.

SECTION 1:

CORE EPIDEMIOLOGIC Data

West Virginia Demographic Data

Socio-demographic Characteristics of the General Population in West Virginia?

This section of the profile will introduce to the reader overall demographic and socioeconomic characteristics of the general population in West Virginia.

POPULATION

According to the 2000 U.S. Census Bureau, the United States population grew by 13.1% between 1990 and 2000 (248,709,873 in 1990, 281,421,906 in 2000). During the same time period, West Virginia's population grew by 0.8%. West Virginia is comprised of 55 counties and 8 public health management districts. The West Virginia State total projected population for 2003 was 1,810,354 with county population ranging from 5,780 (Wirt) to 200,073 (Kanawha) and district populations ranging from 147,800 (District 7B) to 266,837 (District 3). The most populated cities in West Virginia are Charleston, Huntington, Morgantown, Wheeling, Parkersburg, Martinsburg, and Beckley.

Table 1.2 on page 29 and Tables 1.4a and 1.4b on pages 33-34 display the population distribution among the districts and counties in West Virginia for 2000.

DEMOGRAPHIC COMPOSITION

Race/Ethnicity and Gender

West Virginia has various demographic composition from county to county. The population of West Virginia consists of 95% white, 3.2% black, and 1.8% other race/ethnicity (American Indian, Alaska Native, Asian, Native Hawaiian and other Pacific Islander). The largest non-white populations in the state are concentrated in districts 3 (20,690), 1 (18,314), 7 (14,284), and 8 (11,879). Males comprise 48.6% of the West Virginia population while females comprise 51.4%.

Age Group and Gender

The median age of people living in West Virginia in 2000 was 38.9 years, while 22.3% were 18 years and younger, and 15.3% were 65 years and older compared to 25.7% and 12.4% in U.S. population respectively. Table 1.1 on page 28 displays the percentage of the population in each age group.

Poverty, Income, and Education

According to the U.S. Census Bureau Economic Analysis, the median household income for 2003 in West Virginia was $32,967, compared to the $43,318 U.S. national average. The U.S. Bureau of Census reported that West Virginians of 16 years and over accounted for 1,455,101 amongst which 792,344 (54.5%) were in the labor force and 662,757 (45.5%) were not in the labor force. Among the labor force 58,021 (4%) were unemployed. The persons living below poverty in West Virginia was 17.9%, compared to 12.4 % in U.S.

Maps 1.2, 1.3, 1.4, and 1.5 display the West Virginia estimated proverty rates and median household income for 2003.

Public Aid

According to the 2000 U.S. Census Bureau, of the people living in West Virginia 25 years and older, 10% had less than a 9th grade education; 15% had 9th to 12th grade high school education but no diploma; 39.4% were high school graduates (including equivalency); 16.6% had some college, but no degree; 4.3% had an Associate's degree; 8.9% had a Bachelor's degree; and 5.9% had a graduate or professional degree.

As of February 2000, PEIA insured 199,530 state residents, or 11.0% of the state's total population. This number reflects all covered workers, retirees, and their eligible dependents. PEIA-insured workers include state government employees, teachers and support staff, higher education personnel, and some municipal and county employees, as well as 35,470 retirees and their dependents. Monongalia County had the highest proportion of residents receiving health care coverage through PEIA at 15.6%, while Hancock County had the lowest proportion at 4.2%.

According to the Health Care Financing Administration (HCFA), 292,811 state residents, or 16.2% of the state's population, were eligible to receive Medicare benefits either because of age or disability as of March 1999. (This number reflects persons eligible to obtain services, not those who actually received services.) McDowell County reported the highest percentage of Medicare-eligible individuals (22.5%), Monongalia County the lowest (9.4%). Approximately, thirty thousand (29,999) residents received both PEIA and Medicare coverage in February 2000.

Almost fourteen percent (13.8%) of the state's population is eligible for health care coverage through Medicaid. (These data reflect persons eligible to obtain services, not those who actually received services.) Nearly one in three McDowell County residents (32.2%) is Medicaid-eligible, compared to 6.2% of Jefferson County residents. More than eleven thousand (11,251) state residents are both Medicare and Medicaid eligible.

A total of 10,660 children were enrolled in the state's Children's Health Insurance Program (CHIP) as of the end of February 2000. Kanawha County reported the highest number of enrollees (902), while Pleasants County had the lowest number (26).

In all, a total of 795,548 West Virginians, or 43.9% of the state's total population, receive (or, in the case of Medicare and Medicaid, are eligible to receive) publicly funded health care coverage. By county, McDowell County has the highest proportion of recipients of publicly funded health care. Nearly two-thirds (65.7%) of McDowell County residents receive coverage provided by PEIA, Medicare, Medicaid, and/or CHIP. In contrast, only about one-fourth (25.1%) of Jefferson County residents receive publicly funded health care. *

* U.S. Bureau of the Census, 2000 (West Virginia Bureau for Public Health, Health Statistics Center,2002)

West Virginia Population Characteristics By Sex, Age Group, and Race, 1990 vs 2000

West Virginia Population Distribution by Age Group Gender, and Race, 1990 vs 2000				
Characteristic	**1990 Population**		**2000 Population**	
Age Group	**#**	**%**	**#**	**%**
Under 5	106,659	6	101,805	6
5-17	336,918	19	300,588	17
18-44	712,798	40	673,774	37
45-64	368,205	21	455,282	25
65+	268,897	15	276,895	15
Gender				
Male	861,536	48	879,170	49
Female	931,941	52	929,174	51
Race				
White	1,726,023	96	1,718,777	95
Black	56,295	3	57,232	3
Other	11,159	1	32,335	2
Total	**1,793,477**	**100**	**1,808,344**	**100**

Table 1.1

U.S. Bureau of the Census, 2000 (West Virginia Bureau for Public Health, Health Statistics Center,2005)

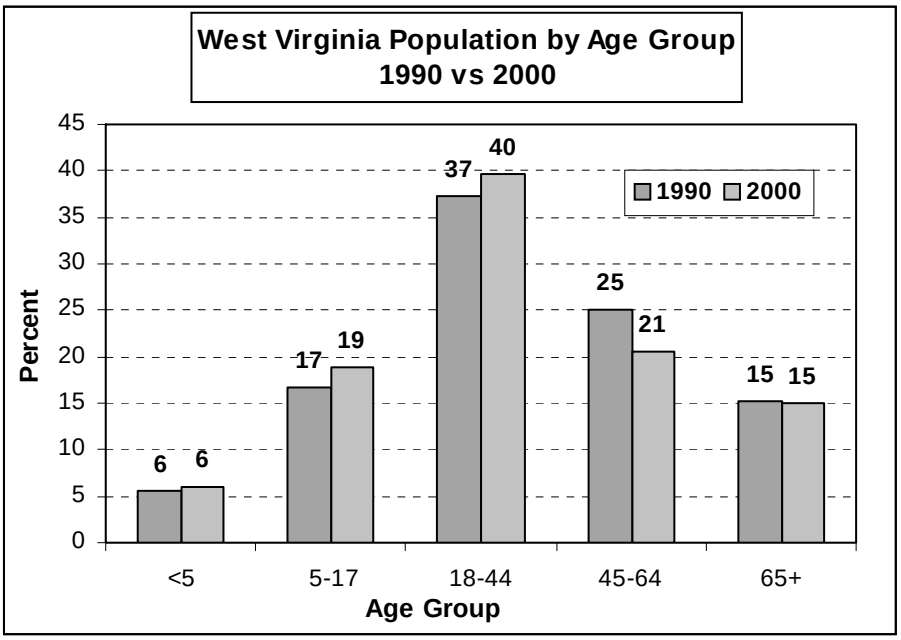


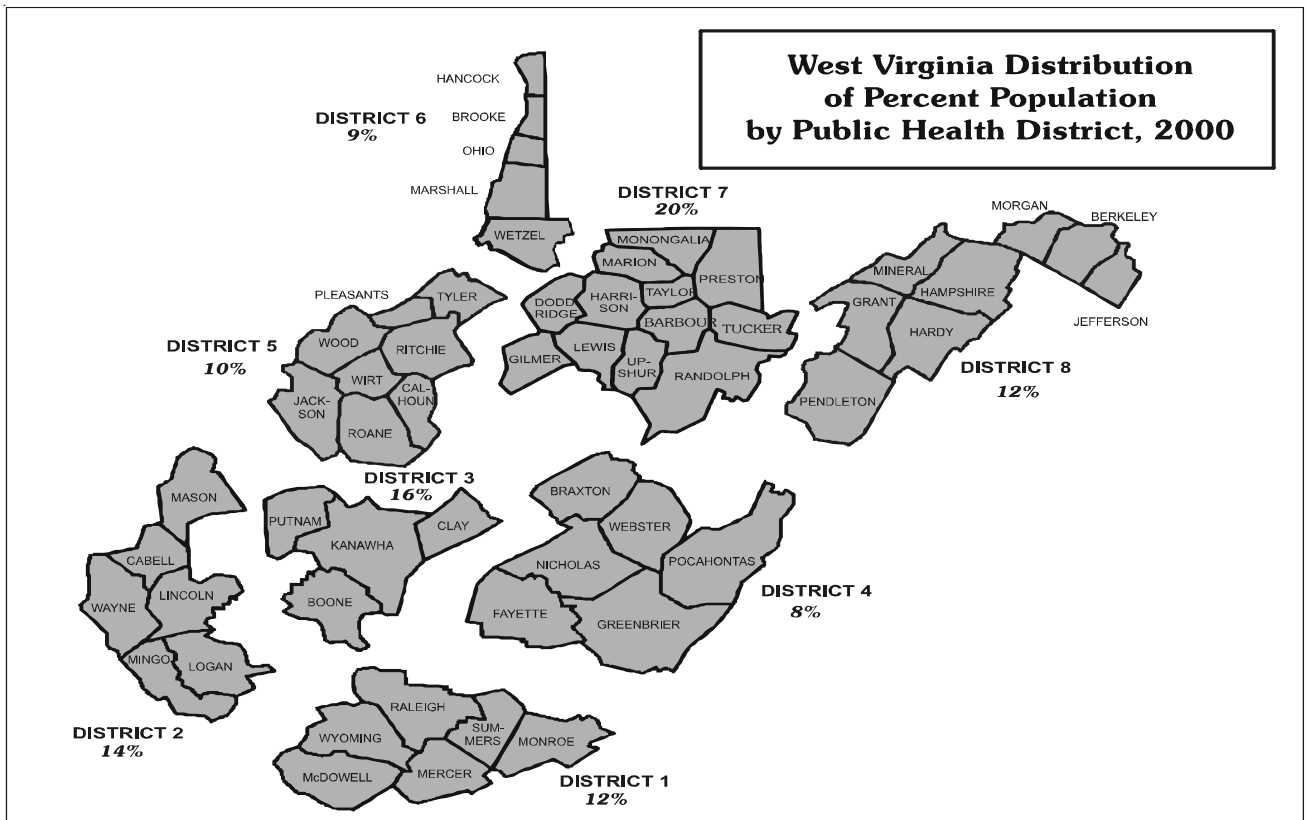
Figure 1.1

The largest percentage of West Virginia's population is among the 18-44 age group (40% in 1990 and 37% in 2000) (Figure 1.1). The female population in West Virginia is higher than the male population (52% to 48% in 1990, and 51% to 49% in 2000) (Table 1.1). Blacks and other minorities combined make up only 4% of the state's population in 1990, but 5% in 2000 (Table 1.1).

West Virginia Population by Race and Public Health District, 2000

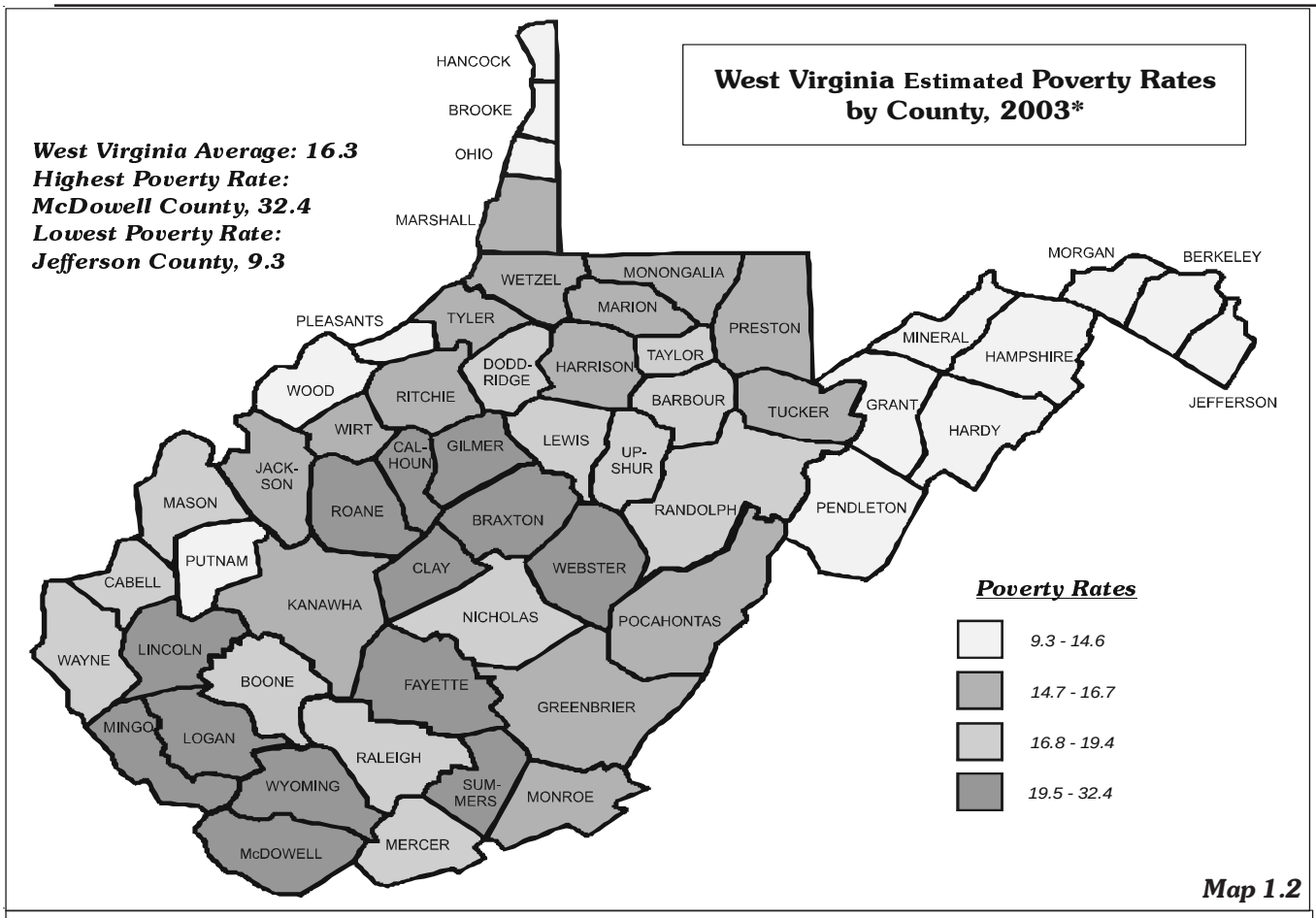
West Virginia Population by Race and Public Health District						
District	White Pop.	% White	Non-white Pop.	% Non-white	Total Pop.	% Total Pop.
1	204,505	92	18,314	8	222,819	12
2	243,738	96	9,977	4	253,715	14
3	266,837	93	20,690	7	287,527	16
4	136,223	96	5,923	4	142,146	8
5	168,908	98	3,428	2	172,336	10
6	153,681	97	5,072	3	158,753	9
7	344,281	96	14,284	4	358,565	20
8	200,604	94	11,879	6	212,483	12
Total	**1,718,777**	**95**	**89,567**	**5**	**1,808,344**	**100**

Table 1.2
U.S. Bureau of the Census, 2000 (West Virginia Bureau for Public Health, Health Statistics Center, 2002)

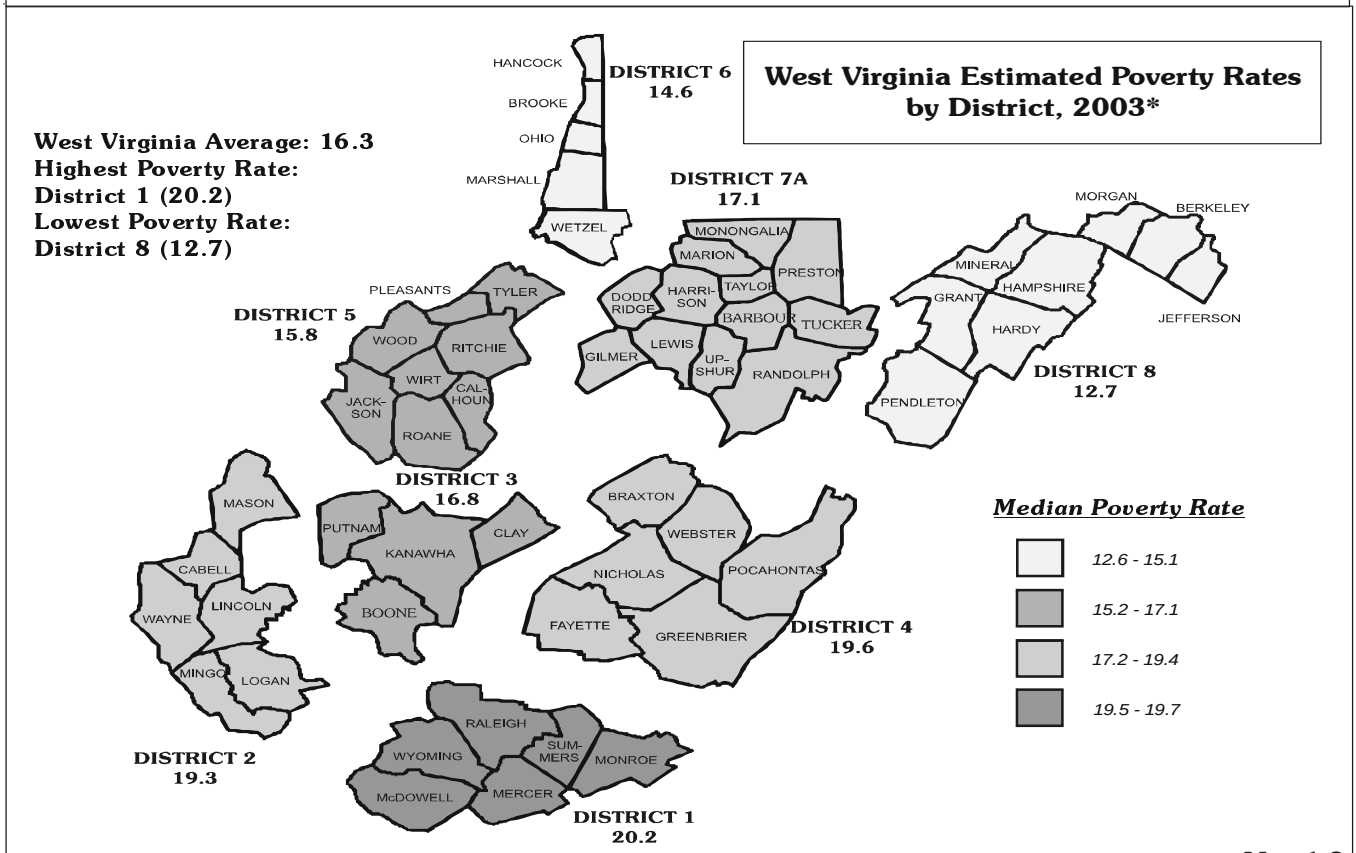


Map 1.1

West Virginia population by race and public health district is listed according to the 2000 U.S. Census in Table 1.2. As seen in Map 1.1, the state currently identifies nine public health districts for HIV prevention community planning. West Virginia's 55 counties are grouped into these eight public health districts. The grouping of counties into districts was used to increase the strength of the data and to protect the anonymity of West Virginia's low HIV/AIDS case counts. West Virginia's population is predominantly white (95%).

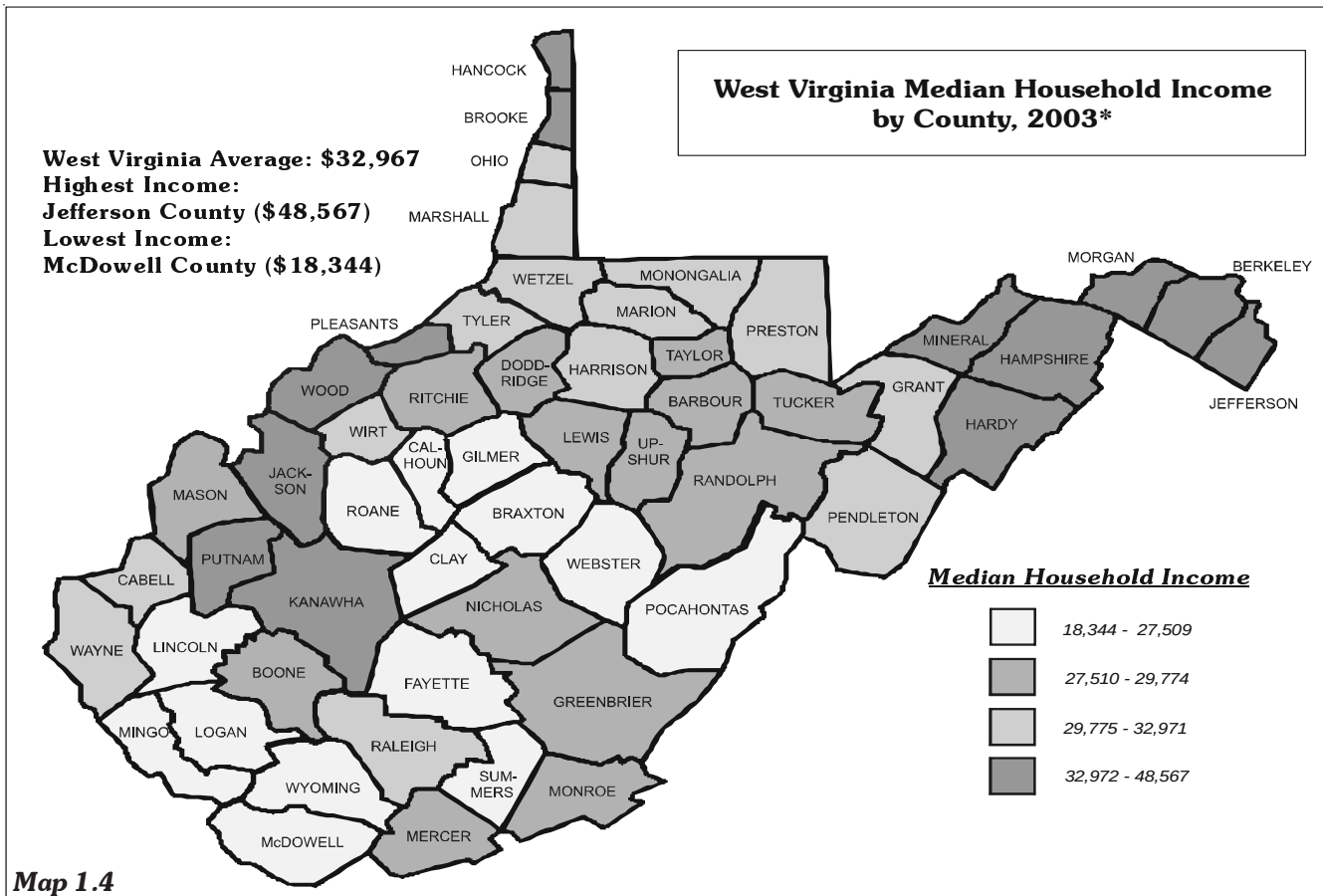


Map 1.2

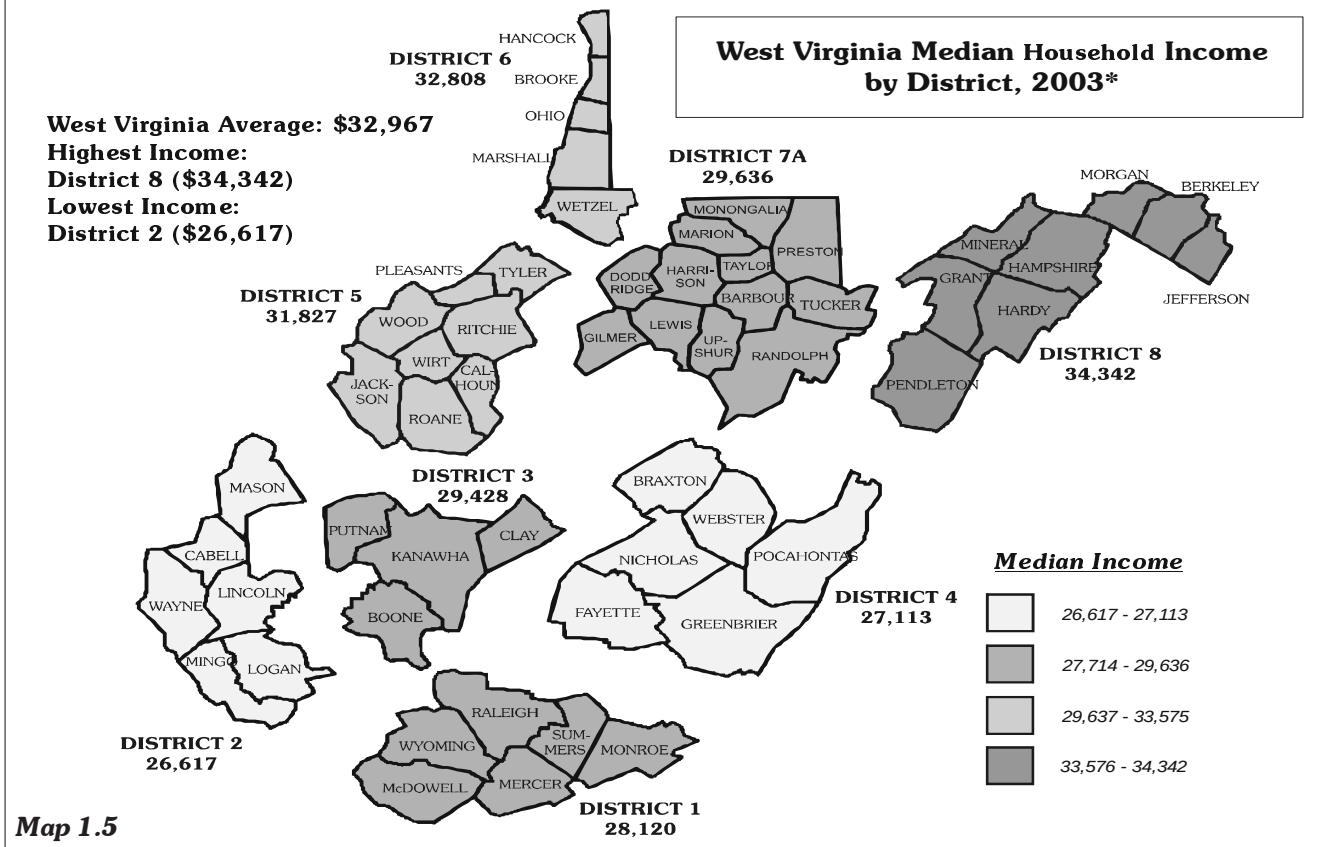


Map 1.3

* 2003 data are estimated. These estimates were released by the US Census Bureau in October 2005.



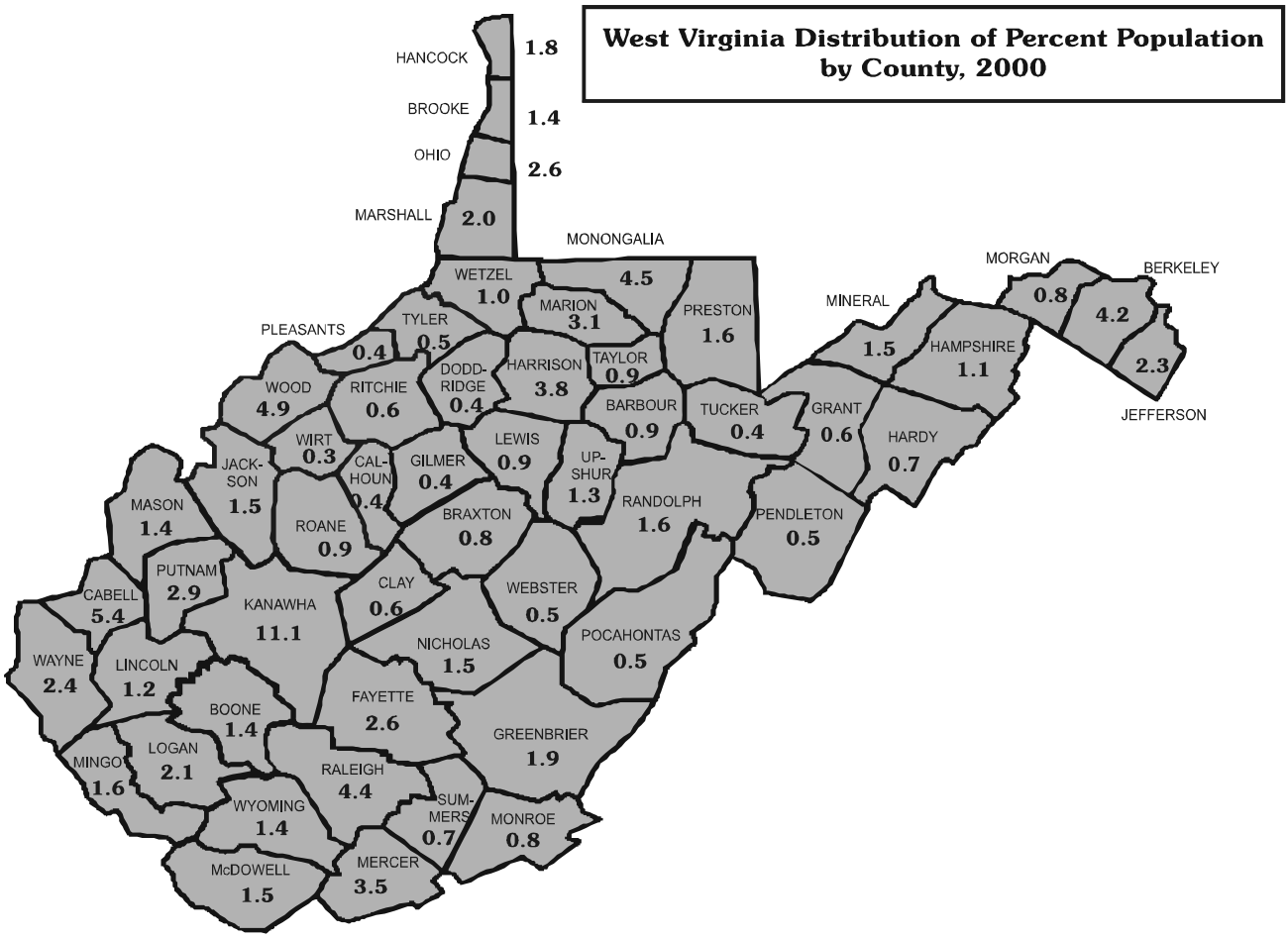
Map 1.4



Map 1.5

* 2003 data are estimated. These estimates were released by the US Census Bureau in October 2005.

West Virginia Population by County, 2000



Map 1.6

West Virginia Counties With Highest Percentage of Non-White Population					
County	White Population		Non-White Popuation		Total Population
	#	%	#	%	
Kanawha	180,989	90	19,084	10	200,073
Raleigh	71,006	90	8,214	10	79,220
McDowell	23,792	87	3,537	13	27,329
Total	275,787	90	30,835	10	306,622
Percent of State Total	**16**		**34**		**17**
State Total	**1,718,777**	**95**	**89,567**	**5**	**1,808,344**

Table 1.3

U.S. Bureau of the Census, 2000 (West Virginia Bureau for Public Health, Health Statistics Center, 2005)

Table 1.3 identifies Kanawha, Raleigh, and McDowell counties as containing 34% of the state's non-white population and 16% of the whites. As will be discussed in greater detail later in this report, non-whites are disproportionately impacted by West Virginia's HIV epidemic, as is seen nationwide. Map 1.6 shows percent of population for West Virginia's 55 counties.

West Virginia Population by County, District, and Race, 2000

WV County Population 2000									
No.	County	Dist	Pop.	White	% White	Black	% Black	Other	% Other
	District 1								
24	MCDOWELL	1	27,329	23,792	87.1	3,250	11.9	287	1.1
28	MERCER		62,980	58,295	92.6	3,668	5.8	1,017	1.6
32	MONROE		14,583	13,514	92.7	872	6.0	197	1.4
41	RALEIGH		79,220	71,006	89.6	6,753	8.5	1,461	1.8
45	SUMMERS		12,999	12,553	96.6	280	2.2	166	1.3
55	WYOMING		25,708	25,345	98.6	161	0.6	202	0.8
	Total		**222,819**	**204,505**	**91.8**	**14,984**	**6.7**	**3,330**	**1.5**
	District 2								
6	CABELL	2	96,784	90,370	93.4	4,150	4.3	2,264	2.3
22	LINCOLN		22,108	21,895	99.0	13	0.1	200	0.9
23	LOGAN		37,710	36,325	96.3	975	2.6	410	1.1
27	MASON		25,957	25,533	98.4	130	0.5	294	1.1
30	MINGO		28,253	27,233	96.4	661	2.3	359	1.3
50	WAYNE		42,903	42,382	98.8	54	0.1	467	1.1
	Total		**253,715**	**243,738**	**96.1**	**5,983**	**2.4**	**3,994**	**1.6**
	District 3								
3	BOONE	3	25,535	25,160	98.5	167	0.7	208	0.8
8	CLAY		10,330	10,146	98.2	8	0.1	176	1.7
20	KANAWHA		200,073	180,989	90.5	13,955	7.0	5,129	2.6
40	PUTNAM		51,589	50,542	98.0	287	0.6	760	1.5
	Total		**287,527**	**266,837**	**92.8**	**14,417**	**5.0**	**6,273**	**2.2**
	District 4								
4	BRAXTON	4	14,702	14,411	98.0	101	0.7	190	1.3
10	FAYETTE		47,579	44,125	92.7	2,650	5.6	804	1.7
13	GREENBRIER		34,453	32,810	95.2	1,048	3.0	595	1.7
34	NICHOLAS		26,562	26,255	98.8	14	0.1	293	1.1
38	POCAHONTAS		9,131	8,983	98.4	71	0.8	77	0.8
51	WEBSTER		9,719	9,639	99.2	1	0.0	79	0.8
	Total		**142,146**	**136,223**	**95.8**	**3,885**	**2.7**	**2,038**	**1.4**
	District 5								
7	CALHOUN	5	7,582	7,499	98.9	8	0.1	75	1.0
18	JACKSON		28,000	27,649	98.7	23	0.1	328	1.2
37	PLEASANTS		7,514	7,386	98.3	36	0.5	92	1.2
43	RITCHIE		10,343	10,206	98.7	14	0.1	123	1.2
44	ROANE		15,446	15,223	98.6	34	0.2	189	1.2
48	TYLER		9,592	9,530	99.4	2	0.0	60	0.6
53	WIRT		5,873	5,788	98.6	17	0.3	68	1.2
54	WOOD		87,986	85,627	97.3	887	1.0	1,472	1.7
	Total		**172,336**	**168,908**	**98.0**	**1,021**	**0.6**	**2,407**	**1.4**
WV Total			**1,808,344**	**1,718,777**	**95.0**	**57,232**	**3.2**	**32,335**	**1.8**

Tabe 1.4a

Note:
U.S. Bureau of the Census, 2000 (West Virginia Bureau for Public Health, Health Statistics Center, 2005)

West Virginia Population by County, District, and Race, 2000 Cont.

WV County Population 2000									
No.	County	Dist	Pop.	White	% White	Black	% Black	Other	% Other
	District 6								
5	BROOKE	6	25,447	24,913	97.9	216	0.8	318	1.2
15	HANCOCK		32,667	31,497	96.4	752	2.3	418	1.3
26	MARSHALL		35,519	34,949	98.4	153	0.4	417	1.2
35	OHIO		47,427	44,820	94.5	1,691	3.6	916	1.9
52	WETZEL		17,693	17,502	98.9	15	0.1	176	1.0
	Total		**158,753**	**153,681**	**96.8**	**2,827**	**1.8**	**2,245**	**1.4**
	District 7								
1	BARBOUR	7	15,557	15,147	97.4	77	0.5	333	2.1
25	MARION		56,598	53,823	95.1	1,823	3.2	952	1.7
31	MONONGALIA		81,866	75,500	92.2	2,763	3.4	3,603	4.4
39	PRESTON		29,334	28,995	98.8	86	0.3	253	0.9
46	TAYLOR		16,089	15,779	98.1	134	0.8	176	1.1
47	TUCKER		7,321	7,237	98.9	5	0.1	79	1.1
9	DODRIDGE		7,403	7,278	98.3	20	0.3	105	1.4
11	GILMER		7,160	6,969	97.3	65	0.9	126	1.8
17	HARRISON		68,652	66,282	96.5	1,105	1.6	1,265	1.8
21	LEWIS		16,919	16,681	98.6	22	0.1	216	1.3
42	RANDOLPH		28,262	27,609	97.7	302	1.1	351	1.2
49	UPSHUR		23,404	22,981	98.2	144	0.6	279	1.2
	Total		**358,565**	**344,281**	**96.0**	**6,546**	**1.8**	**7,738**	**2.2**
	District 8								
2	BERKELEY	8	75,905	70,392	92.7	3,558	4.7	1,955	2.6
12	GRANT		11,299	11,110	98.3	76	0.7	113	1.0
14	HAMPSHIRE		20,203	19,807	98.0	167	0.8	229	1.1
16	HARDY		12,669	12,273	96.9	244	1.9	152	1.2
19	JEFFERSON		42,190	38,400	91.0	2,571	6.1	1,219	2.9
29	MINERAL		27,078	26,037	96.2	690	2.5	351	1.3
33	MORGAN		14,943	14,689	98.3	89	0.6	165	1.1
36	PENDLETON		8,196	7,896	96.3	174	2.1	126	1.5
	Total		**212,483**	**200,604**	**94.4**	**7,569**	**3.6**	**4,310**	**2.0**
WV Total			**1,808,344**	**1,718,777**	**95.0**	**57,232**	**3.2**	**32,335**	**1.8**

Tabe 1.4b

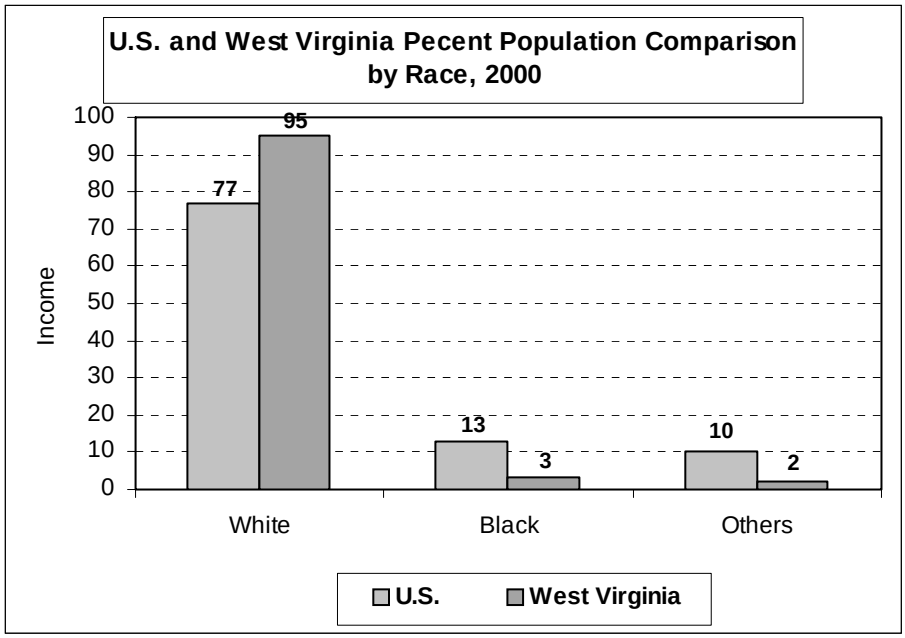


Figure 1.2

West Virginia County Population by Age Group, 2000									
No.	County of Residence	0-9	10-19	20-29	30-39	40-49	50-59	60 +	Total
1	Barbour	1,829	2,248	1,911	2,085	2,299	1,976	3,209	**15,557**
2	Berkeley	10,543	10,831	9,658	12,183	11,984	9,193	11,513	**75,905**
3	Boone	3,217	3,300	3,429	3,246	4,406	3,315	4,622	**25,535**
4	Braxton	1,692	1,953	1,737	2,049	2,322	1,893	3,056	**14,702**
5	Brooke	2,744	3,223	3,023	3,221	4,038	3,239	5,959	**25,447**
6	Cabell	10,665	12,528	16,094	12,236	13,893	11,420	19,948	**96,784**
7	Calhoun	797	1,104	746	1,006	1,228	1,045	1,656	**7,582**
8	Clay	1,354	1,586	1,273	1,409	1,584	1,235	1,889	**10,330**
9	Doddridge	905	1,179	766	992	1,167	916	1,478	**7,403**
10	Fayette	5,505	6,194	6,224	6,166	7,605	5,892	9,993	**47,579**
11	Gilmer	699	1,147	1,175	863	965	863	1,448	**7,160**
12	Grant	1,417	1,381	1,349	1,612	1,639	1,578	2,323	**11,299**
13	Greenbrier	3,956	4,358	3,653	4,417	5,399	4,708	7,962	**34,453**
14	Hampshire	2,638	2,906	2,133	2,888	3,041	2,657	3,940	**20,203**
15	Hancock	3,631	3,865	3,605	4,317	5,384	4,074	7,791	**32,667**
16	Hardy	1,622	1,636	1,397	1,930	1,890	1,669	2,525	**12,669**
17	Harrison	8,357	9,336	8,117	9,368	10,320	8,639	14,515	**68,652**
18	Jackson	3,541	3,877	3,240	3,826	4,309	3,356	5,851	**28,000**
19	Jefferson	5,390	6,087	5,255	6,695	6,788	5,490	6,485	**42,190**
20	Kanawha	23,194	24,214	24,919	26,998	32,965	25,331	42,452	**200,073**
21	Lewis	2,004	2,137	1,899	2,402	2,606	2,217	3,654	**16,919**
22	Lincoln	2,750	3,107	2,920	3,167	3,431	2,730	4,003	**22,108**
23	Logan	4,441	4,893	5,030	4,839	6,544	4,775	7,188	**37,710**
24	McDowell	3,098	3,935	3,029	3,387	4,625	3,557	5,698	**27,329**
25	Marion	6,129	7,343	7,704	7,169	8,344	7,191	12,718	**56,598**
26	Marshall	4,221	4,687	3,853	4,747	5,789	4,709	7,513	**35,519**
27	Mason	3,176	3,401	3,045	3,460	4,166	3,351	5,358	**25,957**
28	Mercer	7,282	7,812	8,327	7,930	9,495	8,071	14,063	**62,980**
29	Mineral	3,290	3,907	3,076	3,665	4,048	3,629	5,463	**27,078**
30	Mingo	3,522	4,139	3,583	4,077	4,713	3,499	4,720	**28,253**
31	Monongalia	8,200	12,431	19,846	10,686	11,077	8,165	11,461	**81,866**
32	Monroe	1,523	1,736	1,848	2,266	2,246	2,007	2,957	**14,583**
33	Morgan	1,867	1,761	1,574	2,096	2,345	1,998	3,302	**14,943**
34	Nicholas	3,093	3,765	3,046	3,628	4,285	3,411	5,334	**26,562**
35	Ohio	5,218	6,528	5,780	5,752	7,466	5,602	11,081	**47,427**
36	Pendleton	943	1,015	923	1,089	1,274	1,034	1,918	**8,196**
37	Pleasants	955	1,001	867	1,070	1,211	950	1,460	**7,514**
38	Pocahontas	978	1,086	981	1,257	1,429	1,295	2,105	**9,131**
39	Preston	3,449	4,248	3,287	4,069	4,697	3,777	5,807	**29,334**
40	Putnam	6,946	7,183	5,859	7,886	8,818	6,709	8,188	**51,589**
41	Raleigh	9,038	9,949	10,706	10,514	13,065	10,130	15,818	**79,220**
42	Randolph	3,281	3,742	3,511	4,135	4,252	3,700	5,641	**28,262**
43	Ritchie	1,227	1,407	1,126	1,425	1,631	1,379	2,148	**10,343**
44	Roane	1,801	2,228	1,821	2,000	2,461	2,020	3,115	**15,446**
45	Summers	1,361	1,617	1,365	1,549	2,043	1,743	3,321	**12,999**
46	Taylor	1,866	2,214	1,851	2,342	2,565	1,965	3,286	**16,089**
47	Tucker	800	913	702	1,024	1,078	1,032	1,772	**7,321**
48	Tyler	1,110	1,318	975	1,268	1,523	1,291	2,107	**9,592**
49	Upshur	2,741	3,600	3,228	2,945	3,446	2,876	4,568	**23,404**
50	Wayne	5,284	5,897	5,386	5,882	6,292	5,527	8,635	**42,903**
51	Webster	1,135	1,335	1,105	1,222	1,579	1,347	1,996	**9,719**
52	Wetzel	2,153	2,468	1,761	2,348	2,699	2,392	3,872	**17,693**
53	Wirt	746	892	630	894	903	717	1,091	**5,873**
54	Wood	10,686	11,666	10,179	12,383	13,642	11,458	17,972	**87,986**
55	Wyoming	2,945	3,446	3,159	3,253	4,648	3,410	4,847	**25,708**
Total		**212,955**	**241,760**	**233,686**	**245,333**	**283,662**	**228,153**	**362,795**	**1,808,344**

Tabe 1.5

Scope of HIV/AIDS in West Virginia

Scope of the HIV/AIDS Epidemic in West Virginia

This section of the epidemiologic profile provides the demographic groups and risk behaviors of people with HIV disease and trends in the epidemic. It shows the number of reported cases of HIV/AIDS yearly and cumulatively through December 2006. It will examine the impact of the HIV/AIDS epidemic on various populations of at risk groups in West Virginia to help community planning groups and other officials make decisions on prevention and care services.

The HIV/AIDS epidemic has infected/affected people of all demographic and socioeconomic groups in all counties of West Virginia. However, the epidemic has not affected all groups equally. Although the highest number of infected persons with AIDS were among white men who have sex with men(MSM). The 5-years trend from 2002-2006 shows that though white MSM are disproportionately affected by the epidemic, the current trend indicates that blacks, women, and heterosexuals with high-risk behaviors were disporportionately affected. It is difficult to draw conclusions from this shift due to the decline in the annual reports and rates of AIDS cases. It is very important that the focus on the epidemic is HIV prevention, care, and services to identify the high-risk and affected population who don't know their HIV/AIDS status.

Figure 2.1 displays an epidemic curve of crude annual rates calculated for a 12-month period per 100,000 West Virginia population. This figure describes the occurrence of AIDS in West Virginia from 1990 through 2006. Rate conclusions must be drawn cautiously on this data, especially when they are based on these small case numbers.

During WV's 22-years of the AIDS epidemic, 1,455 cases were reported. AIDS active case surveillance has uncovered fewer cases and there is a new era of treatment with protease inhibitors and new combination drug therapies where persons with AIDS are living longer with a higher quality of life.

West Virginia AIDS Cases by Year of Report and Diagnosis 1984 - 2006		
Year	**Reported**	**Diagnosed**
84-91	241	317
1992	44	92
1993	98	96
1994	89	89
1995	121	103
1996	110	101
1997	113	85
1998	85	60
1999	58	56
2000	47	42
2001	87	75
2002	77	70
2003	77	77
2004	79	75
2005	69	68
2006	60	59
Total	**1455**	**1465**

Table 2.1

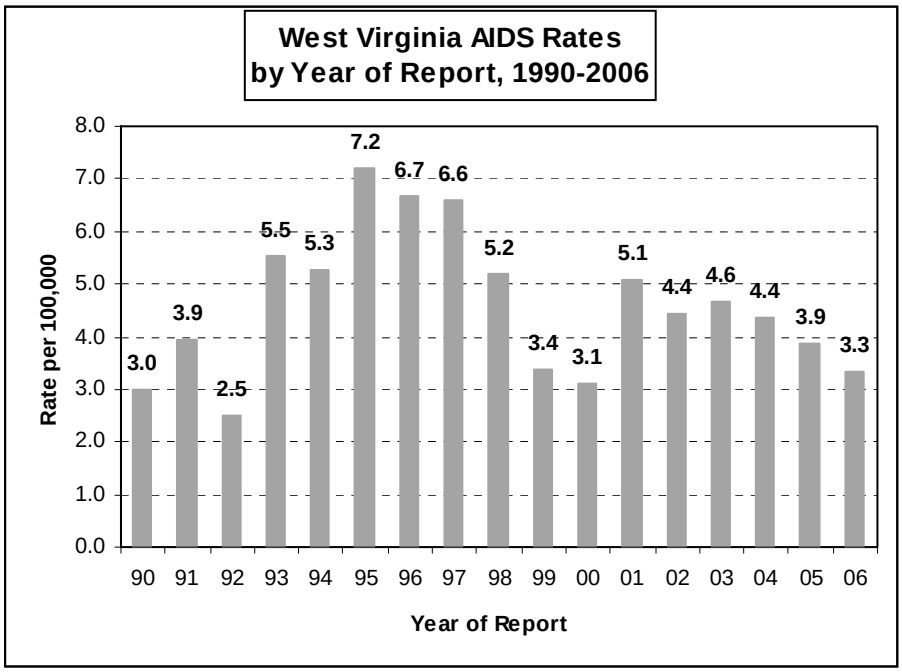


Figure 2.1

Rates are based on the 2000 population of West Virginia. Census population for the state was 1,808,344 in 2000.

West Virginia AIDS Cases by Year of Report, 2002-2006

Table 2.1 displays AIDS in West Virginia from 1984 through 2006 by comparing the year of diagnosis to the year of report. There is a period of time (often referred to as "lag time") between the diagnosis of AIDS and the date the case is reported to the state health department.

In 2006, 60 new AIDS cases were reported to the state health department. This number represents individuals with documented HIV infection reported as AIDS cases meeting CDC's AIDS case definition. These immunologic criterias are (CD4 T-lymphocyte count <200 or <14%) or if the patient becomes ill with one of 26 AIDS-defining conditions called Opportunistic Infection (OI). It does not include the new HIV diagnosis. These are patients who were tested positive for HIV infection before and progressed to AIDS and those who tested late and HIV infection has progressed to AIDS. The following items are noted from a review of the table below:

- The highest percentage of total AIDS cases were reported from 2002-2006 among the 40-49 age group (35%), followed by the 30-39 age group (34%).
- Males and females were 77% and 23% of the reported AIDS cases from 2002-2006, which is an increase for women over the last five years, from 17% to 23% of total reported cases.
- Blacks and whites were 26% and 71% of the reported AIDS cases from 2002-2006, which is an increase for blacks over the last five years from 20% to 26% of total reported cases.
- MSM was 47% of the AIDS reported cases for risk behavior from 2002-2006, which is a declined for MSM over last five years from 54% to 47% of total reported cases. Heterosexual and NIR both increased when comparing the last five years with total reported cases (heterosexual from 11% to 14% and NIR from 8% to 18%).

West Virginia AIDS Cases Comparison by Year of Report, 2002-2006

Characteristic	2002		2003		2004		2005		2006		Total		Cumulative*	
Age Group	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Under 5	0	0	1	1	0	0	0	0	0	0	1	0	**9**	**1**
5-12	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**0**
13-19	2	3	0	0	0	0	2	3	4	7	8	2	**16**	**1**
20-29	13	17	7	9	12	15	13	19	5	8	50	14	**234**	**16**
30-39	29	38	29	38	32	41	19	28	16	27	125	35	**612**	**42**
40-49	21	27	30	39	25	32	27	39	25	42	128	35	**417**	**29**
50+	12	16	10	13	10	13	8	12	10	17	50	14	**164**	**11**
Total	**77**	**100**	**77**	**100**	**79**	**100**	**69**	**100**	**60**	**100**	**362**	**100**	**1455**	**100**
Gender														
Male	60	78	60	78	59	75	57	83	41	68	277	77	**1214**	**83**
Female	17	22	17	22	20	25	12	17	19	32	85	23	**241**	**17**
Total	**77**	**100**	**77**	**100**	**79**	**100**	**69**	**100**	**60**	**100**	**362**	**100**	**1455**	**100**
Race														
White	59	77	52	68	54	68	56	81	35	58	256	71	**1145**	**79**
Black	17	22	23	30	19	24	12	17	23	38	94	26	**290**	**20**
Other/Unk.	1	1	2	3	6	8	1	1	2	3	12	3	**20**	**1**
Total	**77**	**100**	**77**	**100**	**79**	**100**	**69**	**100**	**60**	**100**	**362**	**100**	**1455**	**100**
Risk Behavior														
MSM	41	53	33	43	34	43	38	55	25	42	171	47	**787**	**54**
IDU	10	13	12	16	12	15	8	12	9	15	51	14	**220**	**15**
MSM/IDU	3	4	1	1	2	3	6	9	1	2	13	4	**77**	**5**
Adult Hemoph.	1	1	0	0	2	3	1	1	0	0	4	1	**41**	**3**
Heterosexual	9	12	13	17	10	13	8	12	12	20	52	14	**166**	**11**
Transfusion	0	0	0	0	2	3	0	0	1	2	3	1	**36**	**2**
NIR*/Other	13	17	17	22	17	22	8	12	11	18	66	18	**115**	**8**
Pediatric	0	0	1	1	0	0	0	0	1	2	2	1	**13**	**1**
Total	**77**	**100**	**77**	**100**	**79**	**100**	**69**	**100**	**60**	**100**	**362**	**100**	**1455**	**100**

* AIDS data includes April 1984 through December 31, 2006.

Table 2.2

West Virginia AIDS and HIV Infection Cases and Deaths Comparison by Year of Report, through December 2006*

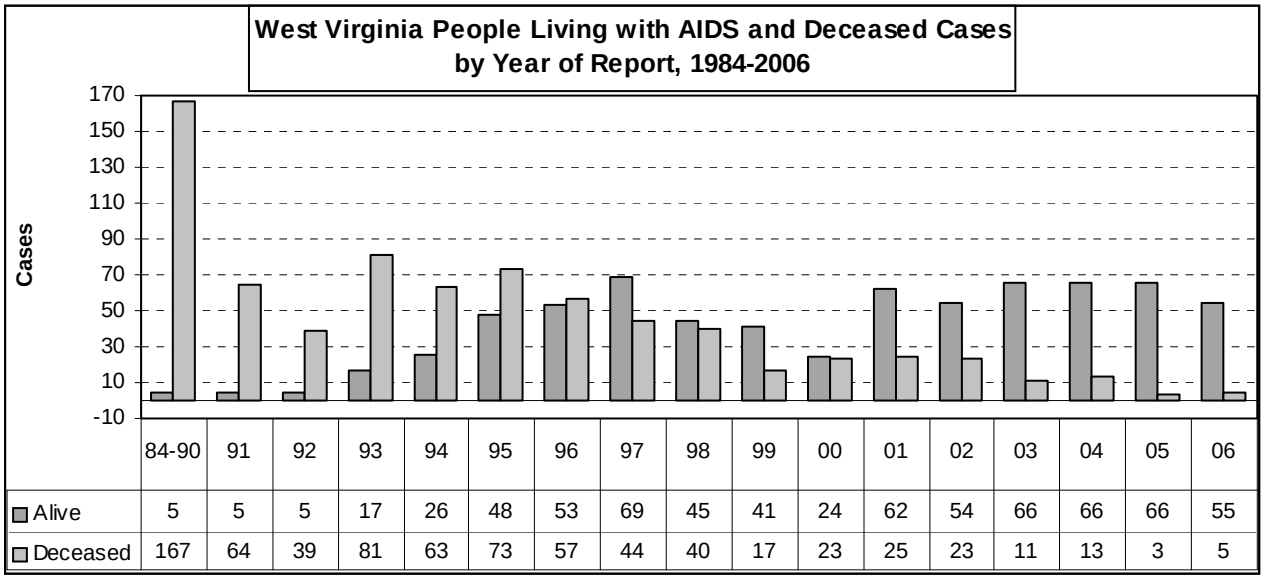


Figure 2.2

Figure 2.2 represents the year that the case was reported, along with the proportion of people known to have died. The impact of new anti-retrovirals, protease inhibitors, combination therapies, and earlier access to care have resulted in a decline in AIDS deaths cases.

Table 2.3 displays that there have been 2,180 HIV infection and AIDS cases reported cumulatively from 1984 through 2006 in West Virginia. The percentage of deceased AIDS cases, as expected, continues to decline from 96% in 1991 to 29% in 1999, but increased to 49% in 2000 due to discovery of fourteen new AIDS cases from a death registry, but declined to 8% in 2006. Among the HIV infection cases reported 94% are living, while the percentage of people living with AIDS is 49%. Overall, the percentage of people living with HIV/AIDS in West Virginia is 64%.

West Virginia AIDS and HIV Infection Cases and People Living with HIV/AIDS(PLWHA) by Year of Report AIDS 1984-2006, HIV 1989-2006

Year of Report	AIDS					HIV (Not AIDS)					Total	PLWHA	
	Total	Alive		Deceased		Total	Alive		Deceased			Alive	
		#	%	#	%		#	%	#	%		#	%
1984-91	**241**	10	4	231	96	**75**	61	81	14	19	**316**	71	22
1992	**44**	5	11	39	89	**40**	38	95	2	5	**84**	43	51
1993	**98**	17	17	81	83	**32**	30	94	2	6	**130**	47	36
1994	**89**	26	29	63	71	**36**	31	86	5	14	**125**	57	46
1995	**121**	48	40	73	60	**42**	36	86	6	14	**163**	84	52
1996	**110**	53	48	57	52	**34**	32	94	2	6	**144**	85	59
1997	**113**	69	61	44	39	**46**	40	87	6	13	**159**	109	69
1998	**85**	45	53	40	47	**46**	43	93	3	7	**131**	88	67
1999	**58**	41	71	17	29	**27**	27	100	0	0	**85**	68	80
2000	**47**	24	51	23	49	**44**	41	93	3	7	**91**	65	71
2001	**87**	62	71	25	29	**37**	37	100	0	0	**124**	99	80
2002	**77**	54	70	23	30	**46**	45	98	1	2	**123**	99	80
2003	**77**	66	86	11	14	**69**	69	100	0	0	**146**	135	92
2004	**79**	66	84	13	16	**52**	51	98	1	2	**131**	117	89
2005	**69**	66	96	3	4	**39**	39	100	0	0	**108**	105	97
2006	**60**	55	92	5	8	**60**	60	100	0	0	**120**	115	96
Total	**1,455**	**707**	**49**	**748**	**51**	**725**	**680**	**94**	**45**	**6**	**2,180**	**1,387**	**64**

Table 2.3

* AIDS data includes April 1984 through December 2006, and HIV data includes January 1989 through December 2006.

West Virginia HIV/AIDS by Age Group, Gender and Year of Report, 2002-2006

West Virginia HIV/AIDS Cases by Age Group and Year of Report, 2002-2006												
Age Group	2002		2003		2004		2005		2006		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Under 5	0	0	1	1	1	1	0	0	0	0	2	0
5-12	0	0	0	0	0	0	0	0	0	0	0	0
13-19	6	5	4	3	2	1	3	3	10	8	25	4
20-29	28	22	27	18	30	22	31	28	26	22	142	22
30-39	48	38	58	38	47	34	25	23	33	28	211	33
40-49	30	24	47	31	42	31	37	33	36	30	192	30
50 +	14	11	16	10	15	11	15	14	15	13	75	12
Total	**126**	**100**	**153**	**100**	**137**	**100**	**111**	**100**	**120**	**100**	**647**	**100**

Table 2.4

West Virginia HIV/AIDS Cases by Gender and Year of Report, 2002-2006												
Gender	2002		2003		2004		2005		2006		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Males	91	72	102	67	92	67	89	80	79	66	453	70
Females	35	28	51	33	45	33	22	20	41	34	194	30
Total	**126**	**100**	**153**	**100**	**137**	**100**	**111**	**100**	**120**	**100**	**647**	**100**

Table 2.5

Tables 2.4 and 2.5 display West Virginia HIV/AIDS cases reported to the state health department by age group and gender from 2002-2006. There has been a gradual decline in the number of HIV/AIDS cases in the 30-39 and 40-49 age group from 2004 to 2006 while these two age groups accounted for 63% of the total reported cases. The trend of the epidemic among males and females shows a decline in the percent of cases among males with exception of 2005 when the fewest number of cases were reported during this 5 year trend. By 2006 females returned 34% of reported HIV/AIDS cases, but a slight increase for females from 28% to 34% from 2002 to 2006.

West Virginia HIV/AIDS Cases by Race, Risk Behavior and Year of Report, 2002-2006

West Virginia HIV/AIDS Cases by Race and Year of Report, 2002-2006

Race	2002		2003		2004		2005		2006		Total	
	#	%	#	%	#	%	#	%	#	%	No.	%
White	95	75	78	51	85	62	92	83	76	63	426	66
Black	29	23	72	47	49	36	17	15	41	34	208	32
Others/Unk	2	2	3	2	3	2	2	2	3	3	13	2
Total	**126**	**100**	**153**	**100**	**137**	**100**	**111**	**100**	**120**	**100**	**647**	**100**

Table 2.6

West Virginia HIV/AIDS Cases by Risk Behavior and Year of Report, 2002-2006

Risk Behavior	2002		2003		2004		2005		2006		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
MSM	65	52	47	31	52	38	67	60	57	48	288	45
IDU	20	16	37	24	24	18	13	12	14	12	108	17
MSM/IDU	3	2	2	1	2	1	6	5	1	1	14	2
Coagulation Disorder	1	1	0	0	2	1	1	1	0	0	4	1
Heterosexual Contact	15	12	35	23	24	18	13	12	21	18	108	17
Transfusion/Transplant	0	0	0	0	3	2	0	0	1	1	4	1
No Identified Risk/Other	22	17	31	20	29	21	11	10	25	21	118	18
Mother with/at risk for HIV	0	0	1	1	1	1	0	0	1	1	3	0
Total	**126**	**100**	**153**	**100**	**137**	**100**	**111**	**100**	**120**	**100**	**647**	**100**

Table 2.7

Tables 2.6 and 2.7 show West Virginia's reported HIV/AIDS cases by race and risk behaviors from 2002-2006. While there was a decrease in 2003-2004 among white, in 2005 whites were reported as 83% of the cases and 63% in 2006. Overall, the total indicates whites as 66% of reported cases from 2002-2206. The blacks cases averaged 32% during this time period. Blacks continue to be disproportionately impacted by accounting for 32% of HIV/AIDS cases, while comprising only 3% of the state's population

MSM accounted for 45% of the total HIV/AIDS reported cases. IDU and heterosexual were the predominant risk behaviors after MSM each accounting for 17% of HIV/AIDS reported cases. In 2006 heterosexual risk behavior increased when compared to 2005 (13 (12%) to 21 (18%) of the reported cases, while the spike among IDUs in 2003 resulted in a total average of 17% for this 5 year trend.

West Virginia AIDS Cases Among MSM* by Age Group and Race, 1992-96, 1997-01, 2002-06

West Virginia AIDS Cases Among MSM* by Age Group, 1992 - 2006								
Age Group	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
13-19	0	0	0	0	3	2	3	<1
20-29	48	18	27	12	31	18	106	16
30-39	132	50	92	42	51	30	275	42
40-49	66	25	64	29	57	34	187	29
50+	20	8	34	16	28	16	82	13
Total Cases	**266**	**100**	**217**	**100**	**170**	**98**	**653**	**100**
% Cases	**41**		**33**		**26**		**100**	

Table 2.12

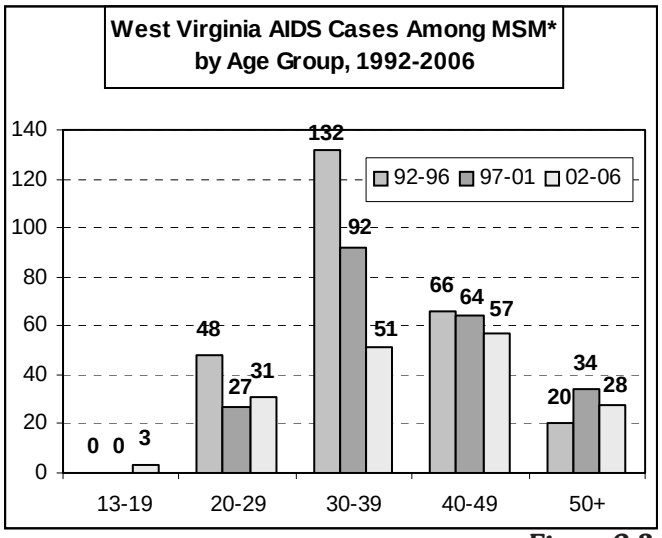


Figure 2.3

West Virginia AIDS Cases Among MSM* by Race, 1992 - 2006								
Race	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
White	248	93	200	92	146	86	594	91
Black	17	6	15	7	21	12	53	8
Other	1	0	2	1	3	2	6	1
Total Cases	**266**	**100**	**217**	**100**	**170**	**100**	**653**	**100**
% Cases	**41**		**33**		**26**		**100**	

Table 2.13

*MSM=Men who have Sex with Men.

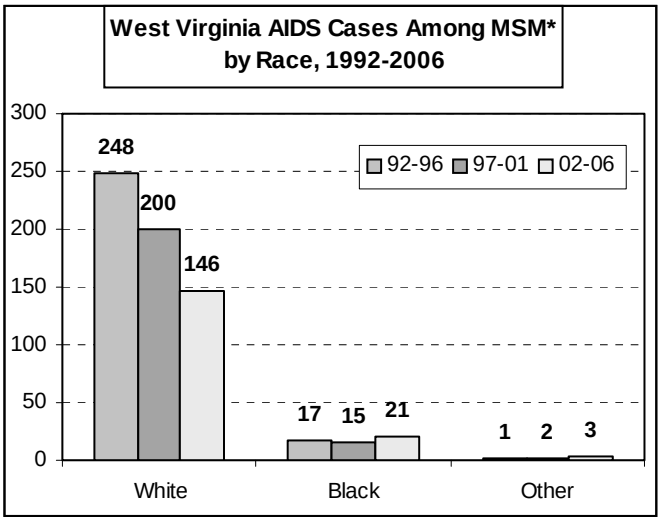


Figure 2.4

Tables 2.12 and 2.13 display West Virginia AIDS cases reported with a risk behavior of MSM by age group and race respectively, for three 5-year aggregates of data, 1992-96, 1997-01 and 2002-06. A gradual decline in number of AIDS reported cases was noticed among MSM when comparing these three 5-year periods (266 (41%) in 1992-96 to 217 (33%) in 1997-01 to 170 (26%) in 2002-06). MSM risk behavior accounted for the highest number of AIDS reported cases among the 30-39 age group. However there was a increase in the number of MSM AIDS reported cases among 40-49 age group when comparing the most recent years to previous time periods.

MSM AIDS reported cases are compared in three 5-year groupings by race in Table 2.13. MSM AIDS reported cases were greater among whites (91%), than blacks (8%). When comparing the three 5-year groupings, there are no changes in number of AIDS cases reported among whites (248 cases in 1992-96 to 200 cases in 1997-01). There was however a visible decrease in the number of AIDS cases reported among whites when comparing the most recent years 2002-06 from 1997-01 (200 (92%) in 1997-01 to 146 (86%) in 2002-06).

West Virginia AIDS Cases Among IDU* by Age Group, Gender, and Race, 1992-96, 1997-01, 2002-06

West Virginia AIDS Cases Among IDU* by Age Group, 1992-2006								
Age Group	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
13-19	0	0	0	0	1	2	1	1
20-29	9	11	6	10	5	10	20	10
30-39	36	45	26	42	16	31	78	40
40-49	28	35	25	40	22	43	75	39
50+	7	9	5	8	7	14	19	10
Total Cases	**80**	**100**	**62**	**100**	**51**	**100**	**193**	**100**
% Cases	**41**		**32**		**26**		**100**	

Table 2.14

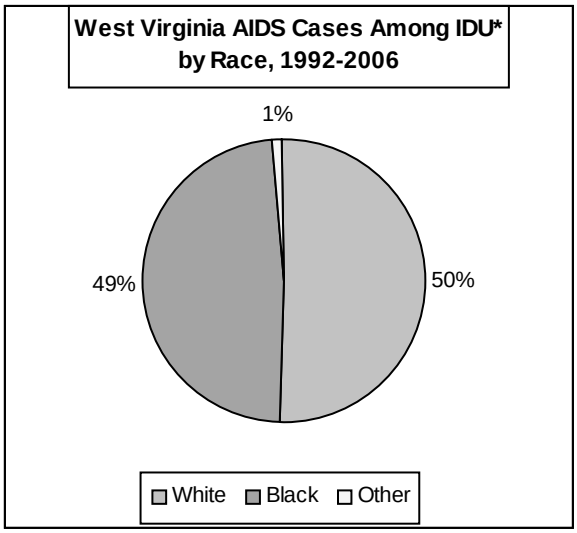


Figure 2.5

West Virginia AIDS Cases Among IDU* by Gender, 1992-2006								
Gender	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
Male	58	73	41	66	33	65	132	68
Female	22	28	21	34	18	35	61	32
Total Cases	**80**	**100**	**62**	**100**	**51**	**100**	**193**	**100**
% Cases	**41**		**32**		**26**		**100**	

Table 2.15

West Virginia AIDS Cases Among IDU* by Race, 1992-2006								
Race	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
White	42	53	30	48	25	49	97	50
Black	37	46	32	52	25	49	94	49
Other	1	1	0	0	1	2	2	1
Total Cases	**80**	**100**	**62**	**100**	**51**	**100**	**193**	**100**
% Cases	**41**		**32**		**26**		**100**	

***Table 2.16**

***IDU**=**I**njecting **D**rug **U**ser.

Most IDU reported cases occurred in the 30-39 and 40-49 age groups, accounting for 79% of the total reported cases. The 30-39 age group experienced a decline in reported cases in the last 5-year aggregates of data compared to previous five-year periods, (26 (42%) in 1997-01 to 16 (31%) in 2002-06). The 40-49 age group experienced a decline in number but, an increase in percentage of cases from 25 cases (40%) in 1997-01 to 22 cases (43%) in 2002-06 (Table 2.14).

A gradual decline in number of AIDS reported cases was noticed among IDU risk behavior when comparing these three 5-year periods (80 (41%) in 1992-96 to 62 (32%) in 1997-01 to 51 (26%) in 2002-06). Comparing gender among IDU risk behavior, males accounted for the highest number of total AIDS reported cases (132) in these three 5-year groupings.

AIDS reported cases with an IDU risk behavior occurred slightly higher among whites than blacks in the last 5-year aggregates of data (97 (50%) among whites compared to 94 (49%) for blacks).

West Virginia AIDS Cases Among Persons With Heterosexual Contact, by Age Group, Gender, and Race 1992-96, 1997-01, 2002-06

West Virginia AIDS Cases Among Heterosexual by Age Group, 1992-2006								
Age Group	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
13-19	0	0	0	0	3	6	3	2
20-29	15	35	9	17	6	11	30	20
30-39	19	44	23	43	25	46	67	45
40-49	8	19	16	30	16	30	40	27
50+	1	2	5	9	4	7	10	7
Total Cases	**43**	**100**	**53**	**100**	**54**	**100**	**150**	**100**
% Cases	**29**		**35**		**36**		**100**	

Table 2.17

West Virginia AIDS Cases Among Heterosexuals by Gender, 1992-2006								
Gender	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
Male	10	23	18	34	10	19	38	25
Female	33	77	35	66	44	81	112	75
Total Cases	**43**	**100**	**53**	**100**	**54**	**100**	**150**	**100**
% Cases	**29**		**35**		**36**		**100**	

Table 2.18

West Virginia AIDS Cases Among Heterosexuals by Race, 1992-2006								
Race	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
White	27	63	37	70	29	54	93	62
Black	16	37	15	28	21	39	52	35
Others	0	0	1	3	4	11	5	5
Total Cases	**43**	**100**	**53**	**98**	**54**	**93**	**150**	**97**
% Cases	**29**		**35**		**36**		**100**	

Table 2.19

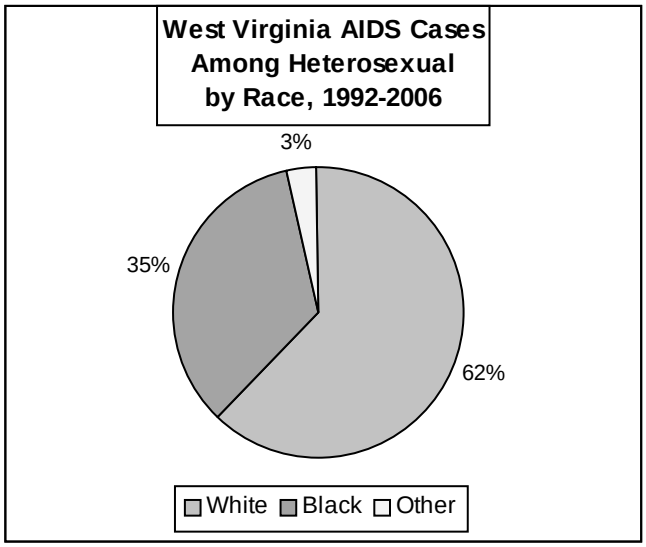


Figure 2.6

Tables 2.17, 2.18, 2.19, and Figure 2.6 display West Virginia HIV/AIDS cases reported with a risk behavior of heterosexual contact respectively by age group, gender, and race for three 5-year aggregated data (1992-96, 1997-01 and 2002-06).

Heterosexual contact HIV/AIDS reported cases occurred mostly among the 30-39 age group (67 cases). In 1992-96, 19 (44%) of the cases occurred within that same age group, the numbers increasing to 23 (43%) in 1997-01. A gradual increase in number of AIDS reported cases was noticed among heterosexual contact risk behavior when comparing these three 5-year periods (43 (29%) in 1992-96 to 53 (35%) in 1997-01 to 54 (36%) in 2002-06).

Although only 150 cases from 1992-2006 were due to heterosexual contact, a gradual increase was seen among females (33 (77%) in 1992-96 to 35 (66%) in 1997-01 to 44 (81%) in 2002-06).

AIDS reported cases due to heterosexual contact increased for whites in 1997-01 when compared to previous time period (27 (63%) in 1992-96 to 37 (70%) in 1997-01), while decreased to 29 (54%) in 2002-06). Blacks with heterosexual contact accounted for 35% of total AIDS reported cases compared to 62% of cases in whites from 1992-2006.

West Virginia AIDS Cases by Age Group and Gender, 1984-2006

West Virginia AIDS Cases by Age Group and Gender, 1984-2006						
Age Group	Male		Female		Total	
	#	%	#	%	#	%
0-12	6	0	6	2	12	1
13-19	11	1	5	2	16	1
20-29	187	15	47	20	234	16
30-39	501	41	111	46	612	42
40-49	367	30	50	21	417	29
50+	142	12	22	9	164	11
Total Cases	**1214**	**100**	**241**	**100**	**1455**	**100**
% Cases	**83**		**17**		**100**	

Table 2.20

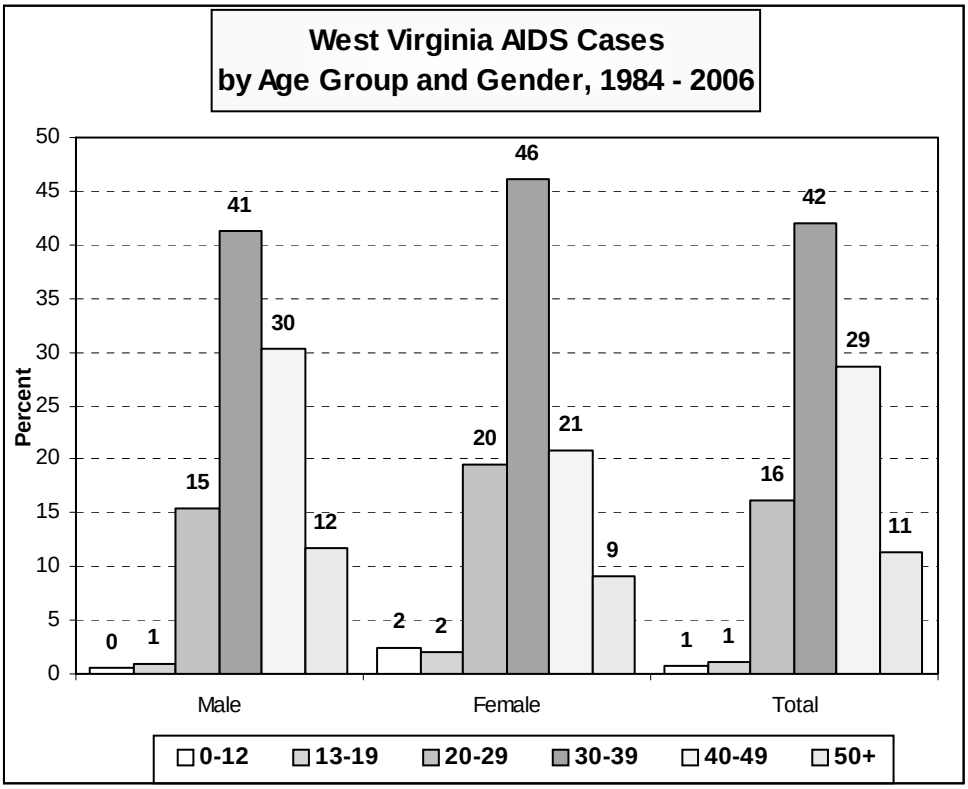


Figure 2.7

AIDS data from 1984 through 2006 indicate that males accounted for 83% of reported cases, compared to only 17% reported cases among females.

More AIDS cases were reported in the 30-39 age group (612 cases or 42%) than any other age group.

West Virginia AIDS Cases by Age Group and Race, 1984 - 2006

West Virginia AIDS Cases by Age Group and Race, 1984 - 2006								
Age Group	White		Black		Other		Total	
	#	%	#	%	#	%	#	%
0-12	6	1	5	2	1	5	12	1
13-19	11	1	5	2	0	0	16	1
20-29	192	17	38	13	4	20	234	16
30-39	488	43	114	39	10	50	612	42
40-49	320	28	93	32	4	20	417	29
50+	128	11	35	12	1	5	164	11
Total Cases	**1145**	**100**	**290**	**100**	**20**	**100**	**1455**	**100**
% Cases	**79**		**20**		**1**		**100**	

Table 2.21

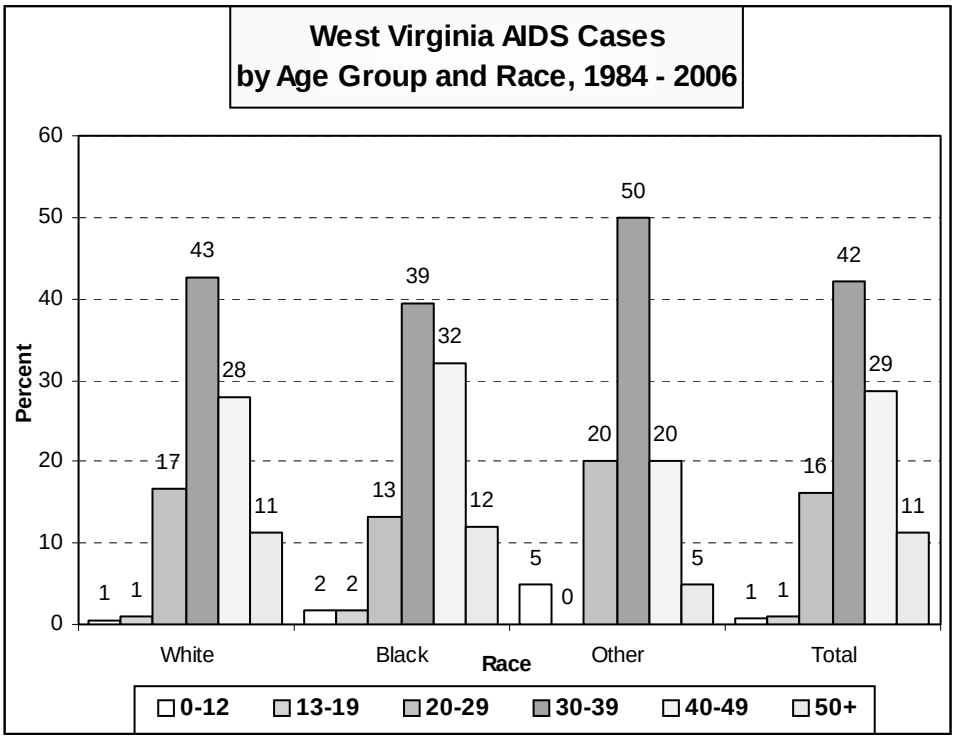


Figure 2.8

Table 2.21 and Figure 2.8 show AIDS cases by age group and race from 1984 through 2006.

Whites were the predominantly affected race with 1145 reported AIDS cases or 79% with 290 cases or 20% in blacks, and 20 cases or 1% among all other races. Blacks in West Virginia comprise only 3% of the state's population and are disproportionately infected by this dieases.

Across all races in WV, the highest number of AIDS cases were reported in the 30-39 age group (612 cases or 42%) with whites accounting for 488 cases, 114 cases in blacks, and 20 from all other races.

West Virginia AIDS Cases by Risk Behavior and Gender 2002 - 2006

West Virginia AIDS Cases Risk Behavior and Gender 2002 - 2006

Risk Behavior	2002				2003				2004				2005				2006				Total		Total	
	M~		F^		M		F		M		F		M		F		M		F		M	F		
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	#	#	%
MSM	41	68	0	0	33	55	0	0	34	58	0	0	38	67	0	0	25	61	0	0	171	0	171	47
IDU	6	10	4	24	8	13	4	24	9	15	3	15	5	9	3	25	5	12	4	21	33	18	51	14
MSM/IDU	3	5	0	0	1	2	0	0	2	3	0	0	6	11	0	0	1	2	0	0	13	0	13	4
Coagualtion Disorder	1	2	0	0	0	0	0	0	2	3	0	0	1	2	0	0	0	0	0	0	4	0	4	1
Heterosexual Contact	1	2	8	47	5	8	8	47	1	2	10	50	1	2	7	58	1	2	11	58	9	44	53	15
Transfusion/Transplt	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	0	1	2	0	0	3	0	3	1
NIR/Others*	8	13	5	29	12	20	5	29	9	15	7	35	6	11	2	17	8	20	3	16	43	22	65	18
Mother with HIV Risk	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	1	5	1	1	2	1
TOTAL	**60**	**100**	**17**	**100**	**60**	**100**	**17**	**100**	**59**	**100**	**20**	**100**	**57**	**100**	**12**	**100**	**41**	**100**	**19**	**100**	**277**	**85**	**362**	**100**

~ **M**=Male ^ **F**=Female

* No Risk Indentified or reclassified to risks other than defined by CDC.

Table 2.22

Table 2.22 displays AIDS cases annually by risk behavior and gender for 2002-2006. When looking at risk behaviors, data show that MSM has remained the highest risk behavior during the five year time period. The numbers are too small to comment on other risk behaviors.

The trends for females should be reviewed carefully due to the small numbers of cases reported during the 2002-2006 time period. Heterosexual contact with an at-risk partner appeared to be the prevailing risk behavior among women (8 cases in 2002 to 11 cases in 2006). Females with IDU risk behavior accounted for 21% of total AIDS reported cases compared to 12% of cases among males from 1992-2006. The numbers are too small to comment on other risk behaviors.

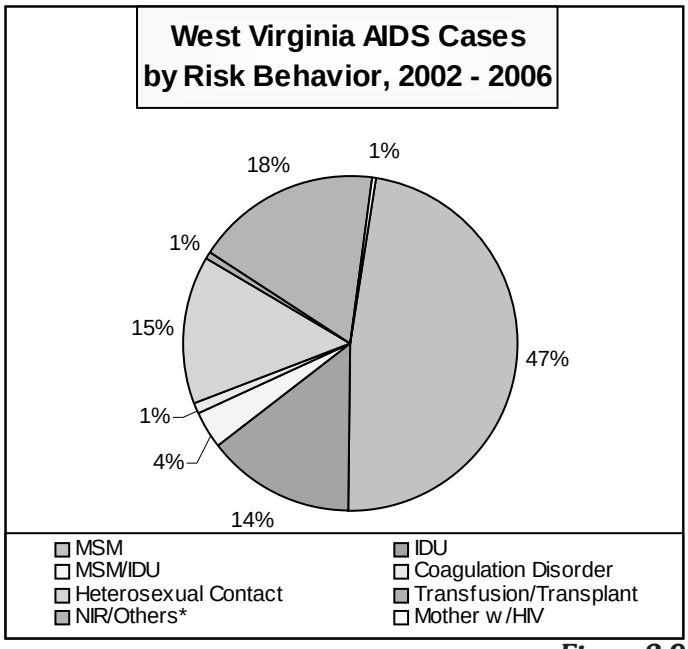
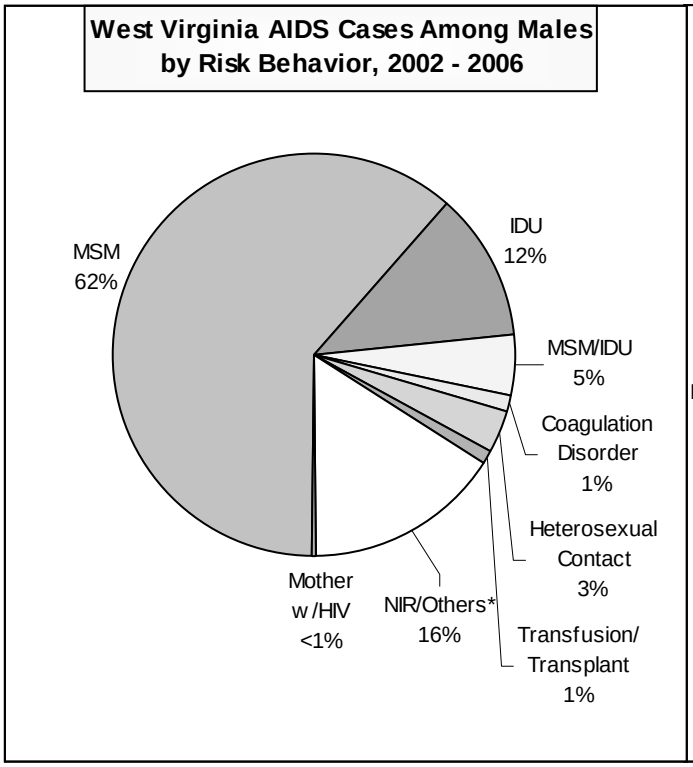


Figure 2.9

West Virginia AIDS Cases by Risk Behavior and Gender, 2002 - 2006



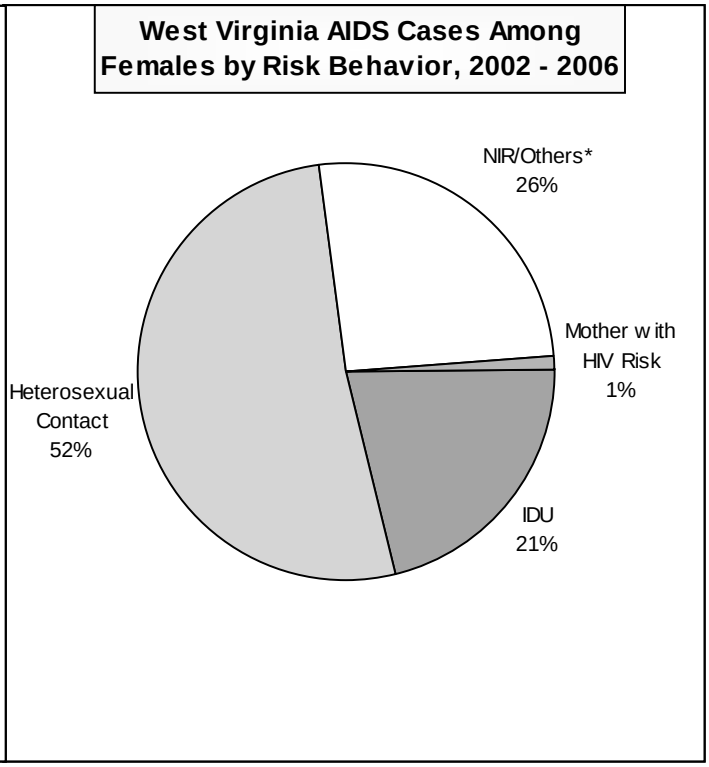


Figure 2.10 ***Figure 2.11***

The MSM risk behavior accounted for the highest percentage of AIDS cases (62%) among men during the years 2002-2006. The second highest risk behavior for men during the same time period was IDU at 12% followed by MSM/IDU at 5%. (Figure 2.10)

Heterosexual contact with an at-risk partner accounted for the highest percentage (52%) of AIDS cases amongh West Viginia's females. The second highest risk behavior for women during the five year span was IDU (21%). Note that the proportion of cases for which there is no identified risk (NIR) among females is substantial (26%).(Figure 2.11)

* No Risk Indentified or reclassified to risks other than defined by CDC.

West Virginia AIDS Cases by Risk Behavior and Race, 2002 - 2006

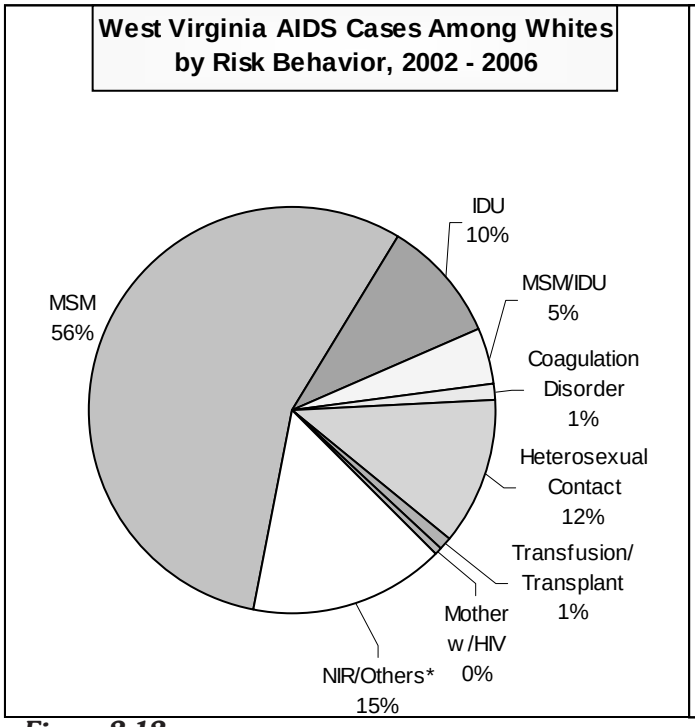


Figure 2.12

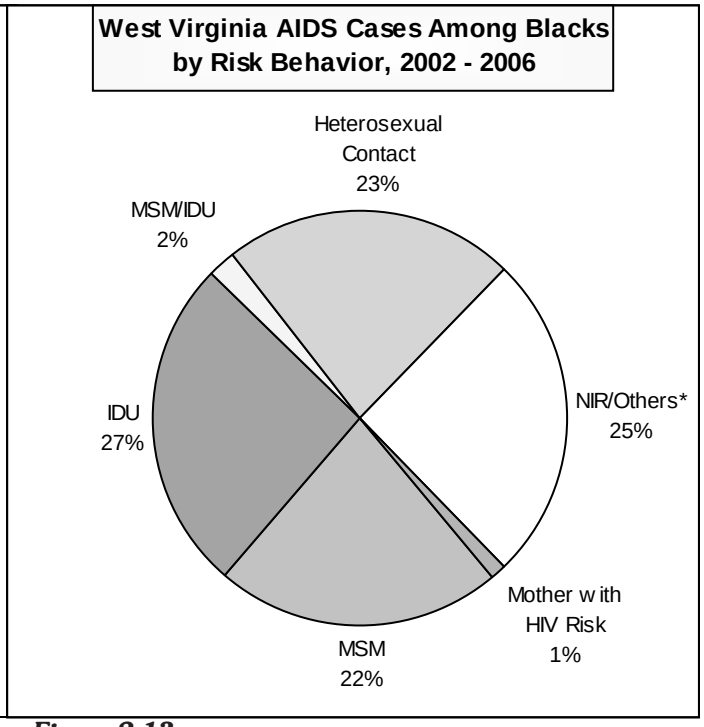


Figure 2.13

During 2002-2006, 56% of West Virginia's white AIDS cases reported MSM as their risk behavior followed by heterosexual contact (12%), IDU (10%), and MSM/IDU (5%). (Figure 2.12).

During the 2002-2006, 27% of blacks with HIV/AIDS cases reported IDU as their risk behavior followed by heterosexual contact (23%), MSM (22%), and MSM/IDU (2%). (Figure 2.13).

When comparing races, 22% of blacks reported a risk behavior of MSM, compared to the 56% among the whites. Blacks with AIDS cases due to heterosexual contact accounted for 23% of the reported cases, compare to 12% reported among the whites.

* No Risk Indentified or reclassified to risks other than defined by CDC.

West Virginia AIDS Cases Among Males by Risk Behavior and Race, 2002 - 2006

West Virginia AIDS Cases Among Males by Risk Behavior and Race, 2002-2006								
Risk Behavior	White		Black		Other		Total	
	#	%	#	%	#	%	#	%
MSM	146	65	21	42	3	60	170	61
IDU	19	9	13	26	1	20	33	12
MSM/IDU	12	5	2	4	0	0	14	5
Coagulation Disorder	3	1	0	0	1	20	4	1
Heterosexual	8	4	3	6	0	0	11	4
Transfus/Transpl	3	1	0	0	0	0	3	1
Mother w/HIV	1	0	0	0	0	0	1	0
NIR/Others*	31	14	11	22	0	0	42	15
Total Cases	**223**	**100**	**50**	**100**	**5**	**100**	**278**	**100**
% Cases	**80**		**18**		**2**		**100**	

Table 2.23

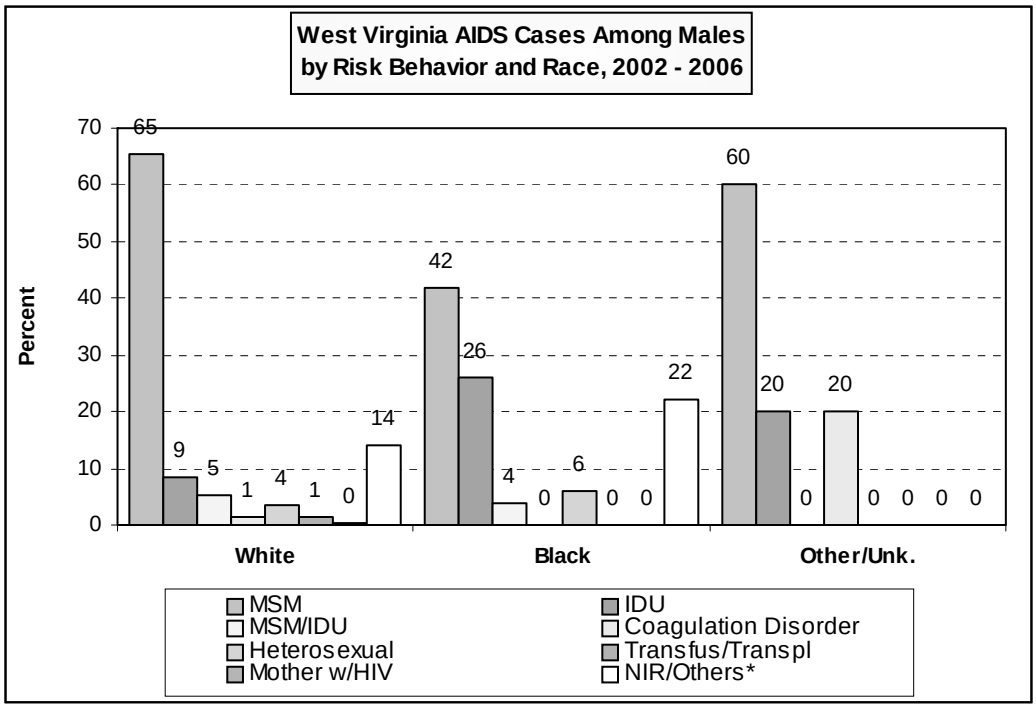


Figure 2.14

Table 2.23 and Figure 2.14 show comprehensive data for male AIDS cases by risk behavior and race for the five-year period 2002-2006.

West Virginia's black males are disproportionately affected by the AIDS epidemic accounting for 18% of the total reported AIDS cases. The main identified risks for the state's black male AIDS cases were MSM (42%) followed by IDU (26%). The highest risk behavior for white males was MSM, accounting for 65% of the reported cases followed by IDU (9%), and Heterosexual Contact (4%).

* No Risk Indentified or reclassified to risks other than defined by CDC.

West Virginia AIDS Cases Among Females by Risk Behavior and Race, 2002 - 2006

West Virginia AIDS Cases Among Females by Risk Behavior and Race, 2002-2006

Risk Behavior	White		Black		Other		Total	
	#	%	#	%	#	%	#	%
IDU	6	16	12	27	0	0	18	21
Heterosexual	22	59	19	42	3	100	44	52
Mother w/HIV	0	0	1	2	0	0	1	1
NIR/Others*	9	24	13	29	0	0	22	26
Total Cases	**37**	**100**	**45**	**100**	**3**	**100**	**85**	**100**
% Cases	**44**		**53**		**4**		**100**	

Table 2.24

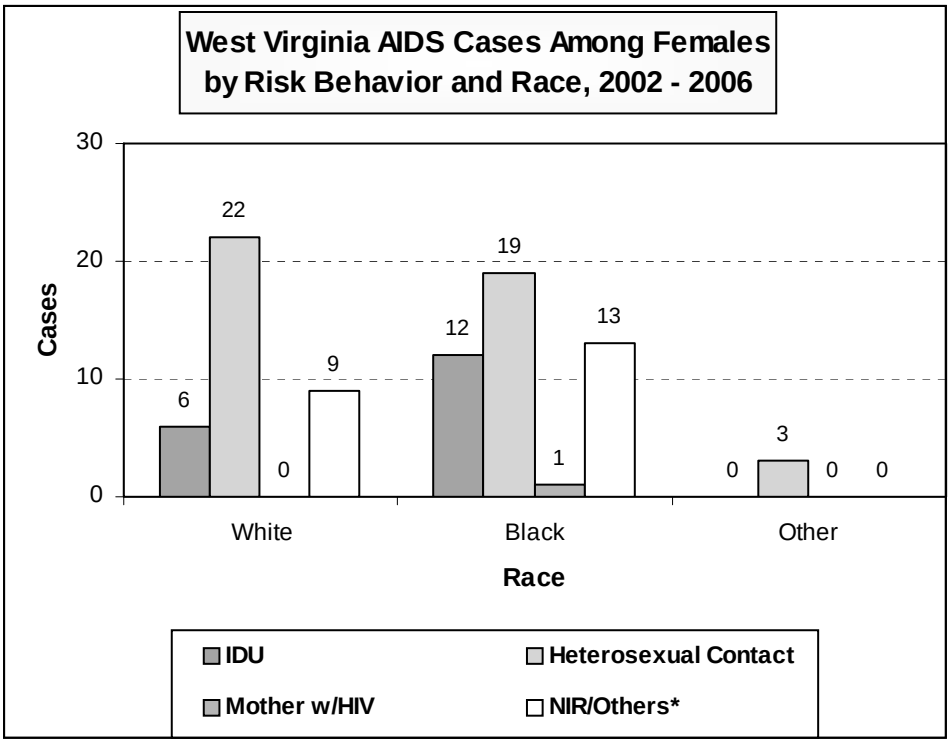


Figure 2.15

Table 2.24 and Figure 2.15 show collected data for female AIDS cases by risk behavior and race for the five year time period of 2002-2006.

Heterosexual contact with a high-risk partner was identified as the predominant risk behavior for white females (59%) followed by IDU (16%). Heterosexual contact was also reported as the predominant risk behavior for black females (42%) followed by IDU (27%).

When comparing races, black females accounted for more cases (53%) than whites (44%) and other (4%). IDU risk behavior appears to occur more often in black females (27%) than white females (16%). Overall heterosexual contact is the most commonly reported risk behavior among both white (59%) and black (42%) females with AIDS.

* No Risk Indentified or reclassified to risks other than defined by CDC.

West Virginia AIDS/HIV Cases and Number of PLWHA by Public Health District, 1984 - 2006*

West Virginia AIDS, HIV Infection Cases,PLWHA, and Percent Population by Public Health District, AIDS 1984-2006, HIV 1989-2006													
District	% State Population	AIDS				HIV (Not AIDS)				Total			
		Total		Alive		Total		Alive		Total		PLWHA	
		#	%	#	%	#	%	#	%	#	%	#	%
1	12	181	12	91	50	152	21	139	91	333	15	230	69
2	14	220	15	91	41	94	13	89	95	314	14	180	57
3	16	332	23	169	51	143	20	137	96	475	22	306	64
4	8	92	6	43	47	35	5	30	86	127	6	73	57
5	10	90	6	36	40	41	6	39	95	131	6	75	57
6	9	125	9	62	50	36	5	35	97	161	7	97	60
7	20	215	15	116	54	114	16	107	94	329	15	223	68
8	12	199	14	99	50	110	15	104	95	309	14	203	66
Total	**100**	**1,454**	**100**	**707**	**49**	**725**	**100**	**680**	**94**	**2,179**	**100**	**1,387**	**64**

Table 2.25

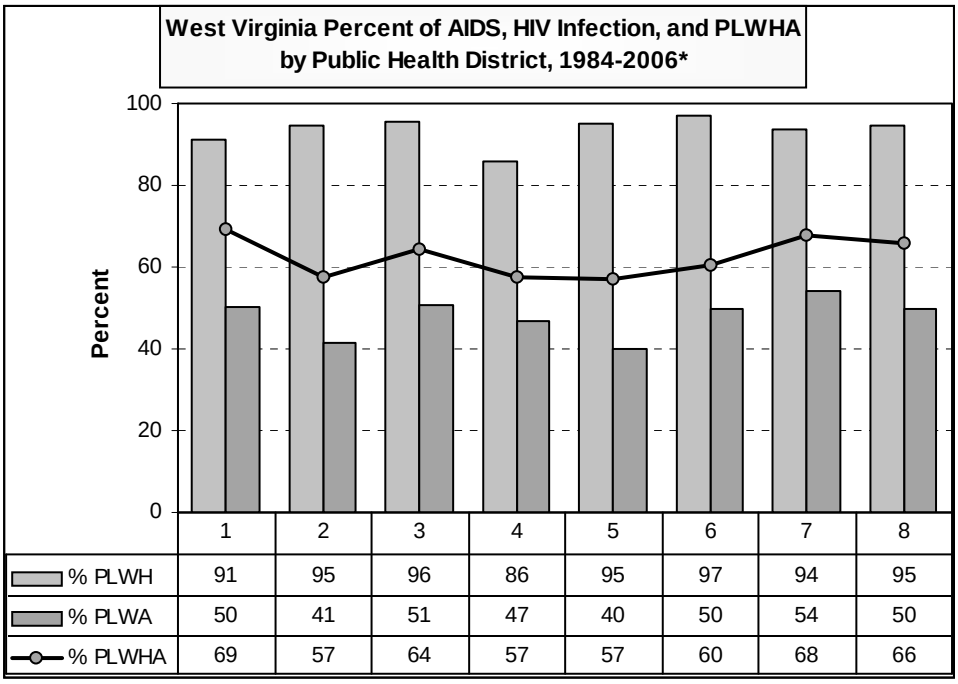


Figure 2.16

During 1984-2006, the percentage of survival for HIV infection cases was 94% compared to a low 49% survival for AIDS cases (Table 2.25). Those identified with HIV disease are living longer, and fewer are progressing more slowly to AIDS. This may be due to the availability of new drug therapies and earlier access to health care.

Figure 2.16 displays cumulative AIDS cases, number of **P**eople **L**iving **W**ith **H**IV/**A**IDS (**PLWHA**), and percentages of survival as related to public health districts. District 1 had the highest percentage of survival (69%), followed by District 7 (68%).

* AIDS data includes April 1984 through December 2006, and HIV data includes January 1989 through December 2006.

West Virginia AIDS Cases Comparison by Public Health District, 1984-2006

West Virginia AIDS Cases Comparison by Public Health District, Age Group, Gender, Race, and Risk Behavior 1984 - 2006

Characteristic	Dist 1		Dist 2		Dist 3		Dist 4		Dist 5		Dist 6		Dist 7		Dist 8		Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Age Group																		
Under 5	3	2	0	0	2	1	1	1	0	0	1	1	1	0	1	1	9	1
5-12	0	0	0	0	0	0	1	1	0	0	1	1	1	0	0	0	3	0
13-19	4	2	3	1	4	1	0	0	1	1	0	0	2	1	2	1	16	1
20-29	34	19	40	18	49	15	12	13	17	19	14	11	38	18	30	15	234	16
30-39	74	41	94	43	147	44	35	38	46	51	55	44	91	42	69	35	612	42
40-49	51	28	61	28	102	31	24	26	18	20	36	29	57	27	68	34	417	29
50+	15	8	22	10	28	8	19	21	8	9	18	14	25	12	29	15	164	11
Total	181	100	220	100	332	100	92	100	90	100	125	100	215	100	199	100	1455	100
Gender																		
Male	136	75	187	85	286	86	76	83	85	94	103	82	182	85	158	79	1214	83
Female	45	25	33	15	46	14	16	17	5	6	22	18	33	15	41	21	241	17
Total	181	100	220	100	332	100	92	100	90	100	125	100	215	100	199	100	1455	100
Race																		
White	98	54	192	87	268	81	72	78	84	93	115	92	178	83	136	68	1145	79
Black	80	44	25	11	61	18	20	22	5	6	10	8	33	15	56	28	290	20
Other/Unknown	3	2	3	1	3	1	0	0	1	1	0	0	4	2	7	4	20	1
Total	181	100	220	100	332	100	92	100	90	100	125	100	215	100	199	100	1455	100
Risk Behavior																		
MSM	65	36	139	63	220	66	45	49	59	66	80	64	93	43	85	43	787	54
IDU	49	27	23	10	34	10	14	15	5	6	11	9	39	18	45	23	220	15
MSM/IDU	12	7	14	6	13	4	5	5	5	6	5	4	15	7	8	4	77	5
Coag. Disorder	9	5	1	0	4	1	2	2	8	9	0	0	14	7	3	2	41	3
Hetero. Contact	25	14	26	12	28	8	15	16	3	3	16	13	24	11	29	15	166	11
Transfusion	1	1	5	2	5	2	3	3	2	2	4	3	6	3	10	5	36	2
NIR*/Other	17	9	12	5	25	8	6	7	8	9	7	6	22	10	18	9	115	8
Pediatric	3	2	0	0	3	1	2	2	0	0	2	2	2	1	1	1	13	1
Total	**181**	**100**	**220**	**100**	**332**	**100**	**92**	**100**	**90**	**100**	**125**	**100**	**215**	**100**	**199**	**100**	**1455**	**100**
% of Report	**12**		**15**		**23**		**6**		**6**		**9**		**15**		**14**		**100**	
% of Population	**12**		**14**		**16**		**8**		**9**		**9**		**20**		**12**		**100**	

Table 2.26

The highest number of AIDS cases (332 cases) overall were reported from district 3 which comprises 16% of the state popuation yet 23% of reported AIDS cases.

Most AIDS cases among males were reported from district 3 (286 cases) followed by district 2 (187 cases) and district 7 (182 cases). Most AIDS cases reported among females were from district 3 (46 cases) followed by district 1 (45 cases) and 8 (41 cases).

Most AIDS cases among whites were reported from district 3 (268 cases) followed by district 2 (192 cases) and district 7 (178 cases). Most AIDS cases reported among blacks were from district 1 (80 cases) followed by district 3 (61 cases) and district 8 (56 cases).

MSM was the highest highest risk behavior with 787 cases reported followed by 220 IDU cases and 166 heterosexual contact cases. The highest number of MSM related AIDS cases were reported from district 3 (220 cases) followed by district 2 (139 cases) and district 7 (93 cases). Most IDU related AIDS cases were reported from district 1 (49 cases) followed by district 8 (45 cases) and districts 7 (39 cases). Most heterosexual contact related AIDS cases reported were from district 8 (29 cases) followed by district 3 (28 cases), district 2 (26 cases), and district 1 (25 cases).

West Virginia PLWHA Comparison by Public Health District, 1984 - 2006

West Virginia PLWHA Comparison by Public Health District, Age Group, Gender, Race, and Risk Behavior AIDS 1984-2006, HIV 1989-2006																		
Characteristic	**Dist 1**		**Dist 2**		**Dist 3**		**Dist 4**		**Dist 5**		**Dist 6**		**Dist 7**		**Dist 8**		**PLWHA**	
	#	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Age Group																		
Under 5	4	2	0	0	2	1	1	1	0	0	0	0	2	1	1	0	10	1
5-12	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
13-19	7	3	5	3	23	8	2	3	3	4	0	0	4	2	9	4	53	4
20-29	60	26	51	28	69	23	17	23	25	33	17	18	59	26	44	22	342	25
30-39	85	37	66	37	111	36	27	37	28	37	44	45	85	38	69	34	515	37
40-49	58	25	43	24	80	26	19	26	15	20	25	26	50	22	62	31	352	25
50+	16	7	15	8	21	7	7	10	4	5	11	11	22	10	18	9	114	8
Total	230	100	180	100	306	100	73	100	75	100	97	100	223	100	203	100	1387	100
Gender																		
Male	116	50	143	79	246	80	54	74	63	84	74	76	184	83	155	76	1035	75
Female	114	50	37	21	60	20	19	26	12	16	23	24	39	17	48	24	352	25
Total	230	100	180	100	306	100	73	100	75	100	97	100	223	100	203	100	1387	100
Race																		
White	92	40	152	84	229	75	48	66	67	89	84	87	150	67	116	57	938	68
Black	134	58	27	15	71	23	25	34	6	8	12	12	65	29	79	39	419	30
Other/Unknown	4	2	1	1	6	2	0	0	2	3	1	1	8	4	8	4	30	2
Total	230	100	180	100	306	100	73	100	75	100	97	100	223	100	203	100	1387	100
Risk Behavior																		
MSM	65	28	104	58	187	61	35	48	49	65	55	57	101	45	84	41	680	49
IDU	76	33	21	12	25	8	16	22	4	5	7	7	41	18	45	22	235	17
MSM/IDU	6	3	5	3	7	2	3	4	1	1	5	5	11	5	7	3	45	3
Coag. Disorder	3	1	2	1	0	0	1	1	4	5	1	1	1	0	0	0	12	1
Hetero. Contact	41	18	35	19	33	11	10	14	10	13	20	21	33	15	34	17	216	16
Transfusion	1	0	1	1	4	1	0	0	1	1	0	0	2	1	2	1	11	1
NIR*/Other	34	15	12	7	47	15	7	10	6	8	9	9	31	14	30	15	176	13
Pediatric	4	2	0	0	3	1	1	1	0	0	0	0	3	1	1	0	12	1
Total	**230**	**100**	**180**	**100**	**306**	**100**	**73**	**100**	**75**	**100**	**97**	**100**	**223**	**100**	**203**	**100**	**1387**	**100**
% of Report	**17**		**13**		**22**		**5**		**5**		**7**		**16**		**15**		**100**	
% of Population	**12**		**14**		**16**		**8**		**9**		**9**		**20**		**12**		**100**	

Table 2.27

Of the 1387 reported PLWHA, the highest proportion was reported from district 3 (306 cases) followed by district 1 (230 cases) and district 7 (223 cases). District 3 comprises 16 % of the state's population yet 22% of reported PLWHA cases resided in this district at the time they were reported. Other districts with disproportionate numbers of PLWHA are district 1 (12% of the population and 17% PLWHA), and district 8 (12% population and 15% PLWHA).

Of the 1035 reported PLWHA males, the highest number were reported from district 3 (246 cases) followed by district 7 (184 cases) and district 8 (155 cases). The highest number of females living with HIV/AIDS among the 352 reported were from district 1 (114 cases) followed by district 3 (60 cases) and district 8 (48 cases).

Of the 938 reported PLWHA whites, the highest number were reported from district 3 (229 cases) followed by district 2 (152 cases) and district 7 (150 cases). The highest number of blacks living with HIV/AIDS among the 419 reported were from district 1 (134 cases) followed by district 8 (79 cases) and district 3 (71 cases).

Overall, the most frequently reported risk behavior was MSM which accounting for 680 cases followed by 235 IDU cases and 216 heterosexual contact cases. The highest number of MSM related PLWHA cases were reported from district 3 (187 cases) followed by district 2 (104 cases) and district 7 (101 cases).

West Virginia HIV/AIDS Reported Cases 2002-2006

The following report is a summary of all HIV/AIDS positives reported as WV cases. This data may be significantly different from the data from the West Virginia Office of Laboratory Services (OLS) because, there is no denominator for the data and data from OLS may be duplicated.

The comparison of all districts data has been summarized below and indicates that some districts have a higher number of infected individuals that are not being identified in APCs. District 1, 3, 7, and 8 remain with the highest number of positives, but district 8 which proportionally was quite low in OLS data ranks fourth in the state for the highest number of infections. District 8 is the Easter Panhandle and comprises two counties known as "bedroom communities" of Washington DC. This may account for the high number of positives seen outside APCs.

HARS and OLS Data Comparison by District, 2002-2006

District	OLS				HARS	
	Positives		Tested			
	#	%	#	%	#	%
1	25	13.0	3,379	11.4	124	19.7
2	51	26.6	5,508	18.5	90	14.3
3	44	22.9	3,739	12.6	106	16.9
4	10	5.2	2,572	8.6	44	7.0
5	10	5.2	2,544	8.6	28	4.5
6	7	3.6	1,176	4.0	34	5.4
7	27	14.1	4,518	15.2	110	17.5
8	10	5.2	4,695	15.8	92	14.6
Unk.	8	4.2	1,621	5.4	-	-
Total	**192**	**100**	**29752**	**100**	**628**	**100**

Table 2.28

West Virginia HIV/AIDS Reported Cases by Risk Behavior and Year of Report, 2002 - 2006

Risk Behavior	Dist 1		Dist 2		Dist 3		Dist 4		Dist 5		Dist 6		Dist 7		Dist 8		Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
MSM	**25**	**20**	**54**	**60**	**60**	**57**	**22**	**50**	**16**	**57**	**18**	**53**	**42**	**38**	**42**	**46**	**279**	**44**
IDU	**43**	**35**	8	9	8	8	**8**	**18**	2	7	1	3	**23**	**21**	**12**	**13**	**105**	**17**
MSM/IDU	3	2	2	2	1	1	2	5	0	0	0	0	5	5	2	2	15	2
Coagulation Disorder	1	1	0	0	0	0	1	2	1	4	0	0	1	1	0	0	4	1
Heterosexual Contact	**26**	**21**	**17**	**19**	**12**	**11**	**6**	**14**	**6**	**21**	**7**	**21**	**13**	**12**	**17**	**18**	**104**	**17**
Transfusion/Transplant	0	0	2	2	0	0	0	0	0	0	0	0	1	1	1	1	4	1
No Identified Risk/Other	25	20	7	8	23	22	5	11	3	11	8	24	25	23	18	20	114	18
Mother with/at risk for HIV	1	1	0	0	2	2	0	0	0	0	0	0	0	0	0	0	3	0
Total	**124**	**100**	**90**	**100**	**106**	**100**	**44**	**100**	**28**	**100**	**34**	**100**	**110**	**100**	**92**	**100**	**628**	**100**

Table 2.29

West Virginia HIV/AIDS Cases Comparison, District 1 by Age Group, Gender, Race, and Risk Behavior, 2002 - 2006														
Characteristic	2002		2003		2004		2005		2006		District 1		WV	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Age Group														
Under 5	0	0	1	3	0	0	0	0	0	0	1	1	2	0
5-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-19	2	9	0	0	0	0	2	20	1	4	5	4	24	4
20-29	7	32	4	11	7	23	2	20	4	17	24	19	136	22
30-39	8	36	14	38	16	52	3	30	7	29	48	39	206	33
40-49	4	18	14	38	6	19	3	30	11	46	38	31	187	30
50+	1	5	4	11	2	6	0	0	1	4	8	6	73	12
Total	22	100	37	100	31	100	10	100	24	100	124	100	628	100
Gender														
Male	12	55	15	41	12	39	6	60	8	33	53	43	443	71
Female	10	45	22	59	19	61	4	40	16	67	71	57	185	29
Total	22	100	37	100	31	100	10	100	24	100	124	100	628	100
Race														
White	9	41	7	19	11	35	8	80	6	25	41	33	420	67
Black	13	59	29	78	18	58	2	20	17	71	79	64	197	31
Other/Unknown	0	0	1	3	2	6	0	0	1	4	4	3	11	2
Total	22	100	37	100	31	100	10	100	24	100	124	100	628	100
Risk Behavior														
MSM	7	32	1	3	9	29	3	30	5	21	25	20	279	44
IDU	8	36	18	49	10	32	2	20	5	21	43	35	105	17
MSM/IDU	1	5	0	0	0	0	2	20	0	0	3	2	15	2
Coag. Disorder	1	5	0	0	0	0	0	0	0	0	1	1	4	1
Hetero. Contact	4	18	8	22	6	19	1	10	7	29	26	21	104	17
Transfusion	0	0	0	0	0	0	0	0	0	0	0	0	4	1
NIR*/Other	1	5	9	24	6	19	2	20	7	29	25	20	114	18
Pediatric	0	0	1	3	0	0	0	0	0	0	1	1	3	0
TOTAL CASES	**22**	**100**	**37**	**100**	**31**	**100**	**10**	**100**	**24**	**100**	**124**	**100**	**628**	**100**

Table 2.30

District 1 has 124 of the 628 infections identified in the state from 2002-2006. Age group data in district 1 have similar patterns to that of statewide data and nothing worth commenting about.

When comparing gender, females in district 1 are disproportionately affected with 57% reported cases compared to 29% statewide.

Blacks in district 1 are disproportionately affected with 64% reported cases compared to 31% statewide while comprise only 3% of the state population.

The highest percentage of infections was seen among IDU at 35% (compared to 17% statewide) followed by heterosexual contacts 21% (compared to 17% statewide) and MSM 20% (compared to 44% statewide). No identified risk was 20% for this district (Table 2.30).

West Virginia HIV/AIDS Cases Comparison, District 2 by Age Group, Gender, Race, and Risk Behavior, 2002 - 2006														
Characteristic	2002		2003		2004		2005		2006		District 2		WV	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Age Group														
Under 5	0	0	0	0	0	0	0	0	0	0	0	0	2	0
5-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-19	1	4	0	0	1	7	0	0	2	11	4	4	24	4
20-29	5	19	3	23	3	21	7	39	2	11	20	22	136	22
30-39	9	33	6	46	7	50	4	22	8	44	34	38	206	33
40-49	7	26	3	23	2	14	4	22	5	28	21	23	187	30
50+	5	19	1	8	1	7	3	17	1	6	11	12	73	12
Total	27	100	13	100	14	100	18	100	18	100	90	100	628	100
Gender														
Male	20	74	12	92	13	93	14	78	13	72	72	80	443	71
Female	7	26	1	8	1	7	4	22	5	28	18	20	185	29
Total	27	100	13	100	14	100	18	100	18	100	90	100	628	100
Race														
White	25	93	12	92	11	79	16	89	16	89	80	89	420	67
Black	2	7	1	8	3	21	2	11	2	11	10	11	197	31
Other/Unknown	0	0	0	0	0	0	0	0	0	0	0	0	11	2
Total	27	100	13	100	14	100	18	100	18	100	90	100	628	100
Risk Behavior														
MSM	14	52	7	54	10	71	12	67	11	61	54	60	279	44
IDU	5	19	0	0	0	0	2	11	1	6	8	9	105	17
MSM/IDU	1	4	0	0	0	0	1	6	0	0	2	2	15	2
Coag. Disorder	0	0	0	0	0	0	0	0	0	0	0	0	4	1
Hetero. Contact	5	19	4	31	1	7	3	17	4	22	17	19	104	17
Transfusion	0	0	0	0	1	7	0	0	1	6	2	2	4	1
NIR*/Other	2	7	2	15	2	14	0	0	1	6	7	8	114	18
Pediatric	0	0	0	0	0	0	0	0	0	0	0	0	3	0
TOTAL CASES	**27**	**100**	**13**	**100**	**14**	**100**	**18**	**100**	**18**	**100**	**90**	**100**	**628**	**100**

Table 2.32

District 2 has 90 of the 628 infections identified in the state from 2002-2006.

The highest percentage of infections in district 2 were reported from 2002-2006 among the 30-39 age group (38%) compared to 33% statewide.

MSM are 52 cases of 86 and the age ranges from 13 to over 49 with 20-39 representing 60% (31/52) of the infected population Whites represent 92% (48//52) of the infected while blacks represent 8% (4/52) indicating they are proportionately affected in this district with 8% of the population identifying as black.

Heterosexual infections are younger ranging from 13 to over 49 with 62% of the infection in 13-39 groups. 64% (9/14) are female and black comprise 21% (3/14) of the total infected population.

IDUs ages are from 20- 49 range with 40-49 comprising 63% (5/8) infected. Gender is split at 50/50 and black are 13% (1/8) of the infected population (Table 2.32).

West Virginia HIV/AIDS Cases Comparison, District 3 by Age Group, Gender, Race, and Risk Behavior, 2002 - 2006

Characteristic	2002		2003		2004		2005		2006		District 3		WV	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Age Group														
Under 5	0	0	0	0	1	7	0	0	0	0	1	1	2	0
5-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-19	2	9	1	4	1	7	1	5	2	8	7	7	24	4
20-29	4	18	4	17	3	20	2	10	6	25	19	18	136	22
30-39	10	45	7	29	3	20	6	29	7	29	33	31	206	33
40-49	4	18	9	38	5	33	9	43	7	29	34	32	187	30
50+	2	9	3	13	2	13	3	14	2	8	12	11	73	12
Total	22	100	24	100	15	100	21	100	24	100	106	100	628	100
Gender														
Male	19	86	16	67	11	73	20	95	17	71	83	78	443	71
Female	3	14	8	33	4	27	1	5	7	29	23	22	185	29
Total	22	100	24	100	15	100	21	100	24	100	106	100	628	100
Race														
White	20	91	17	71	9	60	17	81	15	63	78	74	420	67
Black	2	9	7	29	6	40	3	14	9	38	27	25	197	31
Other/Unknown	0	0	0	0	0	0	1	5	0	0	1	1	11	2
Total	22	100	24	100	15	100	21	100	24	100	106	100	628	100
Risk Behavior														
MSM	14	64	10	42	8	53	15	71	13	54	60	57	279	44
IDU	0	0	4	17	2	13	2	10	0	0	8	8	105	17
MSM/IDU	0	0	0	0	0	0	1	5	0	0	1	1	15	2
Coag. Disorder	0	0	0	0	0	0	0	0	0	0	0	0	4	1
Hetero. Contact	2	9	5	21	2	13	1	5	2	8	12	11	104	17
Transfusion	0	0	0	0	0	0	0	0	0	0	0	0	4	1
NIR*/Other	6	27	5	21	2	13	2	10	8	33	23	22	114	18
Pediatric	0	0	0	0	1	7	0	0	1	4	2	2	3	0
TOTAL CASES	22	100	24	100	15	100	21	100	24	100	106	100	628	100

Table 2.34

District 3:

District 3 has 113 of the 654 infections identified in the state. The highest percentage of infections is seen among MSM at 59%. Heterosexuals were 15% and IDU were 8%. No identified risk is 17% for this district which is higher than heterosexual and IDU infections (Table 2.35).

The breakdown of age, gender and race for the highest percentage of infections is identified:

1. MSM are 67 cases of 113 and the age ranges from 13- to over 49 with 30-39 representing 66% (44/67)of the infected population Whites represent 88% (59/67) of the infected while blacks represent 12% (8/67) indicating they are proportionately affected in this district with 7% of the population identifying as black.

2. Heterosexual infections range from 13- over 49 with 53% (8/53) of the infection in 30-39 groups. 87% (13/15) are female and black comprise 47% (7/15) of the total infected population.

3. IDUs ages are from 20- over 49 range with 30-49 comprising 66% (6/9) infected. Gender is split at 67% (6/9) and black are 33% (3/9) of the infected populations (Table 2.34).

West Virginia HIV/AIDS Cases Comparison, District 4 by Age Group, Gender, Race, and Risk Behavior, 2002 - 2006

Characteristic	2002		2003		2004		2005		2006		District 4		WV	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Age Group														
Under 5	0	0	0	0	0	0	0	0	0	0	0	0	2	0
5-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-19	0	0	0	0	0	0	0	0	0	0	0	0	24	4
20-29	1	8	4	36	2	25	1	13	2	40	10	23	136	22
30-39	6	50	4	36	3	38	2	25	0	0	15	34	206	33
40-49	3	25	2	18	1	13	3	38	2	40	11	25	187	30
50+	2	17	1	9	2	25	2	25	1	20	8	18	73	12
Total	12	100	11	100	8	100	8	100	5	100	44	100	628	100
Gender														
Male	9	75	7	64	5	63	8	100	4	80	33	75	443	71
Female	3	25	4	36	3	38	0	0	1	20	11	25	185	29
Total	12	100	11	100	8	100	8	100	5	100	44	100	628	100
Race														
White	8	67	9	82	5	63	8	100	3	60	33	75	420	67
Black	4	33	2	18	3	38	0	0	2	40	11	25	197	31
Other/Unknown	0	0	0	0	0	0	0	0	0	0	0	0	11	2
Total	12	100	11	100	8	100	8	100	5	100	44	100	628	100
Risk Behavior														
MSM	7	58	3	27	4	50	4	50	4	80	22	50	279	44
IDU	2	17	3	27	0	0	2	25	1	20	8	18	105	17
MSM/IDU	1	8	0	0	0	0	1	13	0	0	2	5	15	2
Coag. Disorder	0	0	0	0	0	0	1	13	0	0	1	2	4	1
Hetero. Contact	0	0	3	27	3	38	0	0	0	0	6	14	104	17
Transfusion	0	0	0	0	0	0	0	0	0	0	0	0	4	1
NIR*/Other	2	17	2	18	1	13	0	0	0	0	5	11	114	18
Pediatric	0	0	0	0	0	0	0	0	0	0	0	0	3	0
TOTAL CASES	**12**	**100**	**11**	**100**	**8**	**100**	**8**	**100**	**5**	**100**	**44**	**100**	**628**	**100**

Table 2.36

District

D[illegible] of the 654 infections identified in the state. The highest percentage of infections is seen among MSM at 50%, Heterosexuals were 16% and IDU were 15%. No identified risk is 11% for this district (Table 2.37).

The breakdown of age, gender and race for the highest percentage of infections is identified:

1. MSM are 22 cases of 44 and the age ranges from 20- to over 49 with 30-39 representing 50% (11/22)of the infected population Whites represent 86% (19/22) of the infected while blacks represent 14% (3/22).

2. Heterosexual infections range from 20- 49 with 43% (3/49) of the infection in 30-39 groups. 86% (6/7) are female and black comprise 57% (4/7) of the total infected population.

3. IDUs ages are from 20- over 49 range. 71% (5/7) are male and no blacks are identified as infected (Table 2.36).

West Virginia HIV/AIDS Cases Comparison, District 5 by Age Group, Gender, Race, and Risk Behavior, 2002 - 2006														
Characteristic	2002		2003		2004		2005		2006		District 5		WV	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Age Group														
Under 5	0	0	0	0	0	0	0	0	0	0	0	0	2	0
5-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-19	0	0	0	0	0	0	0	0	0	0	0	0	24	4
20-29	2	20	2	40	2	50	5	71	1	50	12	43	136	22
30-39	3	30	1	20	2	50	0	0	0	0	6	21	206	33
40-49	4	40	2	40	0	0	1	14	1	50	8	29	187	30
50+	1	10	0	0	0	0	1	14	0	0	2	7	73	12
Total	10	100	5	100	4	100	7	100	2	100	28	100	628	100
Gender														
Male	8	80	3	60	3	75	5	71	1	50	20	71	443	71
Female	2	20	2	40	1	25	2	29	1	50	8	29	185	29
Total	10	100	5	100	4	100	7	100	2	100	28	100	628	100
Race														
White	9	90	4	80	4	100	6	86	1	50	24	86	420	67
Black	1	10	1	20	0	0	1	14	1	50	4	14	197	31
Other/Unknown	0	0	0	0	0	0	0	0	0	0	0	0	11	2
Total	10	100	5	100	4	100	7	100	2	100	28	100	628	100
Risk Behavior														
MSM	5	50	3	60	2	50	5	71	1	50	16	57	279	44
IDU	1	10	1	20	0	0	0	0	0	0	2	7	105	17
MSM/IDU	0	0	0	0	0	0	0	0	0	0	0	0	15	2
Coag. Disorder	0	0	0	0	1	25	0	0	0	0	1	4	4	1
Hetero. Contact	1	10	1	20	1	25	2	29	1	50	6	21	104	17
Transfusion	0	0	0	0	0	0	0	0	0	0	0	0	4	1
NIR*/Other	3	30	0	0	0	0	0	0	0	0	3	11	114	18
Pediatric	0	0	0	0	0	0	0	0	0	0	0	0	3	0
TOTAL CASES	**10**	**100**	**5**	**100**	**4**	**100**	**7**	**100**	**2**	**100**	**28**	**100**	**628**	**100**

Table 2.38

District 5:

District 5 has 39 of the 654 infections identified in the state and is the lowest number of infections seen in the state. The highest percentage of infections is seen among MSM at 56%, Heterosexuals were 15% and IDU were 8%. No identified risk is 15% for this district (Table 2.39)

The breakdown of age, gender and race for the highest percentage of infections is identified:

1. MSM are 22 cases of 39 cases ranging from 20-49. Whites represent 95% (21/22).

2. Heterosexual infections range from 20- 49 with 83% (5/6) of the infection in 20-29 group. 83% (5/6) are female and black comprise 33% (2/6) of the total infected population (Table 2.38).

West Virginia HIV/AIDS Cases Comparison, District 6 by Age Group, Gender, Race, and Risk Behavior, 2002 - 2006														
Characteristic	2002		2003		2004		2005		2006		District 6		WV	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Age Group														
Under 5	0	0	0	0	0	0	0	0	0	0	0	0	2	0
5-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-19	0	0	0	0	0	0	0	0	0	0	0	0	24	4
20-29	0	0	2	25	2	29	1	17	1	13	6	18	136	22
30-39	1	20	2	25	1	14	2	33	1	13	7	21	206	33
40-49	4	80	3	38	3	43	1	17	2	25	13	38	187	30
50+	0	0	1	13	1	14	2	33	4	50	8	24	73	12
Total	5	100	8	100	7	100	6	100	8	100	34	100	628	100
Gender														
Male	4	80	7	88	5	71	4	67	6	75	26	76	443	71
Female	1	20	1	13	2	29	2	33	2	25	8	24	185	29
Total	5	100	8	100	7	100	6	100	8	100	34	100	628	100
Race														
White	4	80	6	75	7	100	5	83	8	100	30	88	420	67
Black	1	20	2	25	0	0	1	17	0	0	4	12	197	31
Other/Unknown	0	0	0	0	0	0	0	0	0	0	0	0	11	2
Total	5	100	8	100	7	100	6	100	8	100	34	100	628	100
Risk Behavior														
MSM	2	40	6	75	3	43	2	33	5	63	18	53	279	44
IDU	0	0	0	0	1	14	0	0	0	0	1	3	105	17
MSM/IDU	0	0	0	0	0	0	0	0	0	0	0	0	15	2
Coag. Disorder	0	0	0	0	0	0	0	0	0	0	0	0	4	1
Hetero. Contact	0	0	1	13	2	29	2	33	2	25	7	21	104	17
Transfusion	0	0	0	0	0	0	0	0	0	0	0	0	4	1
NIR*/Other	3	60	1	13	1	14	2	33	1	13	8	24	114	18
Pediatric	0	0	0	0	0	0	0	0	0	0	0	0	3	0
TOTAL CASES	**5**	**100**	**8**	**100**	**7**	**100**	**6**	**100**	**8**	**100**	**34**	**100**	**628**	**100**

Table 2.40

District 6:

District 3 has 42 of the 654 infections identified in the state. The highest percentage of infections is seen among MSM at 48%, Heterosexuals were 21% and IDU were 5%. No identified risk is 26% for this district which is higher than heterosexual and IDU infections (Table 2.41).

The breakdown of age, gender and race for the highest percentage of infections is identified:

1. MSM are 22 cases of 42 cases. Whites represent 85% (17/20).

2. No identified risk is the second highest risk in this district (Table 2.40).

West Virginia HIV/AIDS Cases Comparison, District 7 by Age Group, Gender, Race, and Risk Behavior, 2002 - 2006														
Characteristic	2002		2003		2004		2005		2006		District 7		WV	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Age Group														
Under 5	0	0	0	0	0	0	0	0	0	0	0	0	2	0
5-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-19	1	8	0	0	0	0	0	0	2	9	3	3	24	4
20-29	3	25	3	9	5	20	7	41	5	22	23	21	136	22
30-39	6	50	14	42	7	28	3	18	8	35	38	35	206	33
40-49	1	8	12	36	10	40	7	41	5	22	35	32	187	30
50+	1	8	4	12	3	12	0	0	3	13	11	10	73	12
Total	12	100	33	100	25	100	17	100	23	100	110	100	628	100
Gender														
Male	8	67	31	94	18	72	17	100	20	87	94	85	443	71
Female	4	33	2	6	7	28	0	0	3	13	16	15	185	29
Total	12	100	33	100	25	100	17	100	23	100	110	100	628	100
Race														
White	8	67	17	52	15	60	17	100	19	83	76	69	420	67
Black	4	33	15	45	9	36	0	0	4	17	32	29	197	31
Other/Unknown	0	0	1	3	1	4	0	0	0	0	2	2	11	2
Total	12	100	33	100	25	100	17	100	23	100	110	100	628	100
Risk Behavior														
MSM	6	50	8	24	4	16	15	88	9	39	42	38	279	44
IDU	4	33	7	21	7	28	1	6	4	17	23	21	105	17
MSM/IDU	0	0	3	9	1	4	0	0	1	4	5	5	15	2
Coag. Disorder	0	0	0	0	1	4	0	0	0	0	1	1	4	1
Hetero. Contact	1	8	7	21	3	12	1	6	1	4	13	12	104	17
Transfusion	0	0	0	0	1	4	0	0	0	0	1	1	4	1
NIR*/Other	1	8	8	24	8	32	0	0	8	35	25	23	114	18
Pediatric	0	0	0	0	0	0	0	0	0	0	0	0	3	0
TOTAL CASES	**12**	**100**	**33**	**100**	**25**	**100**	**17**	**100**	**23**	**100**	**110**	**100**	**628**	**100**

Table 2.42

District 7:

District 7 has 116 of the 654 infections identified in the state. The highest percentage of infections is seen among MSM at 41%, IDU were 22% and heterosexual were 14%. No identified risk is 17% for this district which is higher than heterosexual (Table 2.43).

The breakdown of age, gender and race for the highest percentage of infections is identified:

1. MSM are 47 cases (41%) of 116 ranging from 20-over 49. Whites represent 38% (44/116).

2. IDUs ages are from 20- over 49 range with 30-99 comprising 44% (11/25) infected. 80% (20/25) are males and blacks are 48% (12/25) of the infected population with IDU risk behavior Table 2.42).

West Virginia HIV/AIDS Cases Comparison, District 8 by Age Group, Gender, Race, and Risk Behavior, 2002 - 2006

Characteristic	2002		2003		2004		2005		2006		District 8		WV	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Age Group														
Under 5	0	0	0	0	0	0	0	0	0	0	0	0	2	0
5-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-19	0	0	2	13	0	0	0	0	3	19	5	5	24	4
20-29	4	31	3	20	5	19	5	24	5	31	22	24	136	22
30-39	5	38	6	40	7	26	5	24	2	13	25	27	206	33
40-49	2	15	2	13	12	44	8	38	4	25	28	30	187	30
50+	2	15	2	13	3	11	3	14	2	13	12	13	73	12
Total	13	100	15	100	27	100	21	100	16	100	92	100	628	100
Gender														
Male	9	69	7	47	22	81	14	67	10	63	62	67	443	71
Female	4	31	8	53	5	19	7	33	6	38	30	33	185	29
Total	13	100	15	100	27	100	21	100	16	100	92	100	628	100
Race														
White	11	85	5	33	17	63	15	71	9	56	57	62	420	67
Black	0	0	9	60	9	33	6	29	6	38	30	33	197	31
Other/Unknown	2	15	1	7	1	4	0	0	1	6	5	5	11	2
Total	13	100	15	100	27	100	21	100	16	100	92	100	628	100
Risk Behavior														
MSM	8	62	5	33	10	37	10	48	9	56	42	46	279	44
IDU	0	0	2	13	4	15	3	14	3	19	12	13	105	17
MSM/IDU	0	0	0	0	1	4	1	5	0	0	2	2	15	2
Coag. Disorder	0	0	0	0	0	0	0	0	0	0	0	0	4	1
Hetero. Contact	2	15	5	33	4	15	2	10	4	25	17	18	104	17
Transfusion	0	0	0	0	1	4	0	0	0	0	1	1	4	1
NIR*/Other	3	23	3	20	7	26	5	24	0	0	18	20	114	18
Pediatric	0	0	0	0	0	0	0	0	0	0	0	0	3	0
TOTAL CASES	**13**	**100**	**15**	**100**	**27**	**100**	**21**	**100**	**16**	**100**	**92**	**100**	**628**	**100**

Table 2.44

District 8:

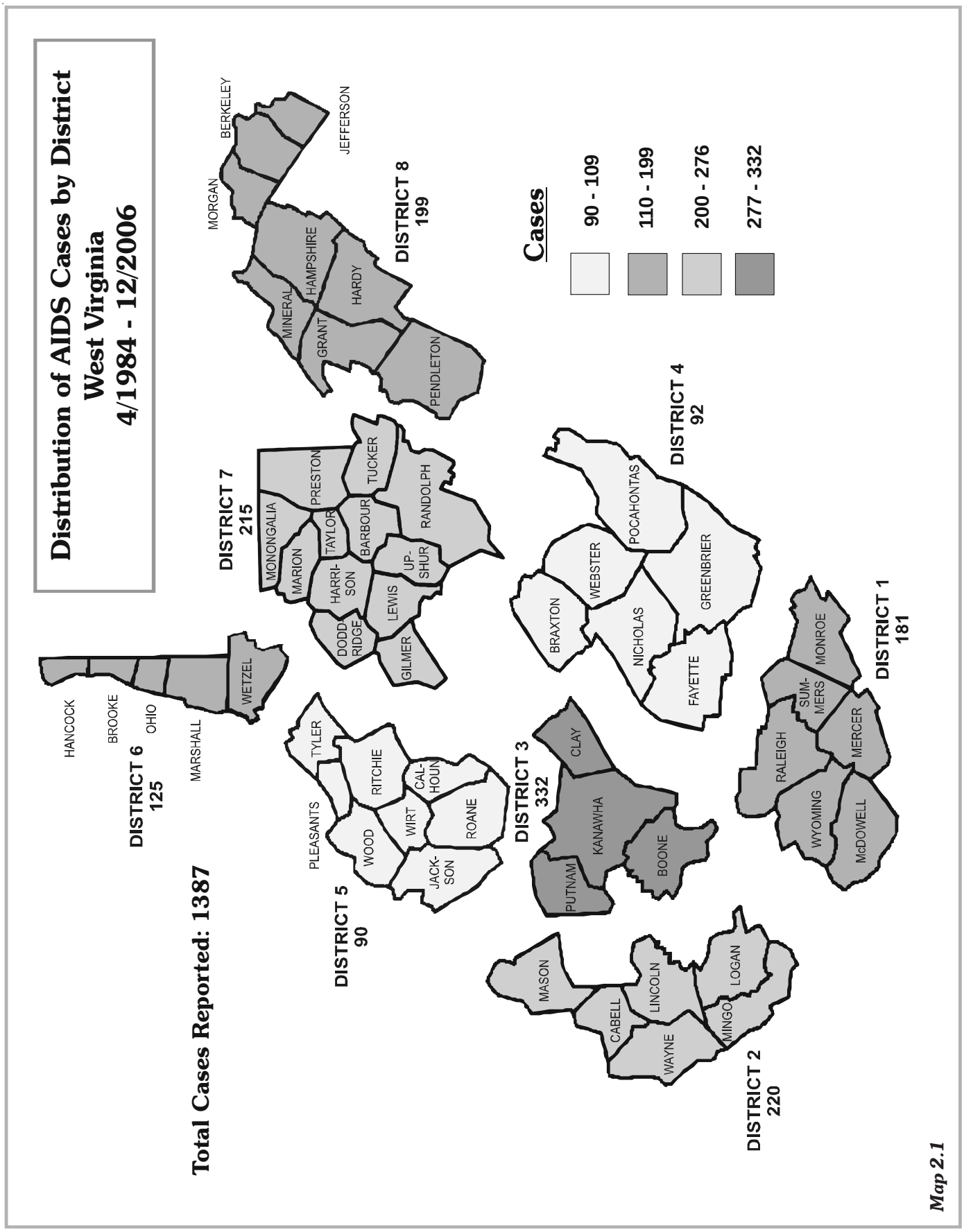
District 8 has 100 of the 634 infections identified in the state. The highest percentage of infections is seen among MSM at 48%, Heterosexuals were 21% and IDU were 5%.. No identified risk is 26% for this district which is higher than heterosexual and IDU infections (Table 2.45).

The breakdown of age, gender and race for the highest percentage of infections is identified:

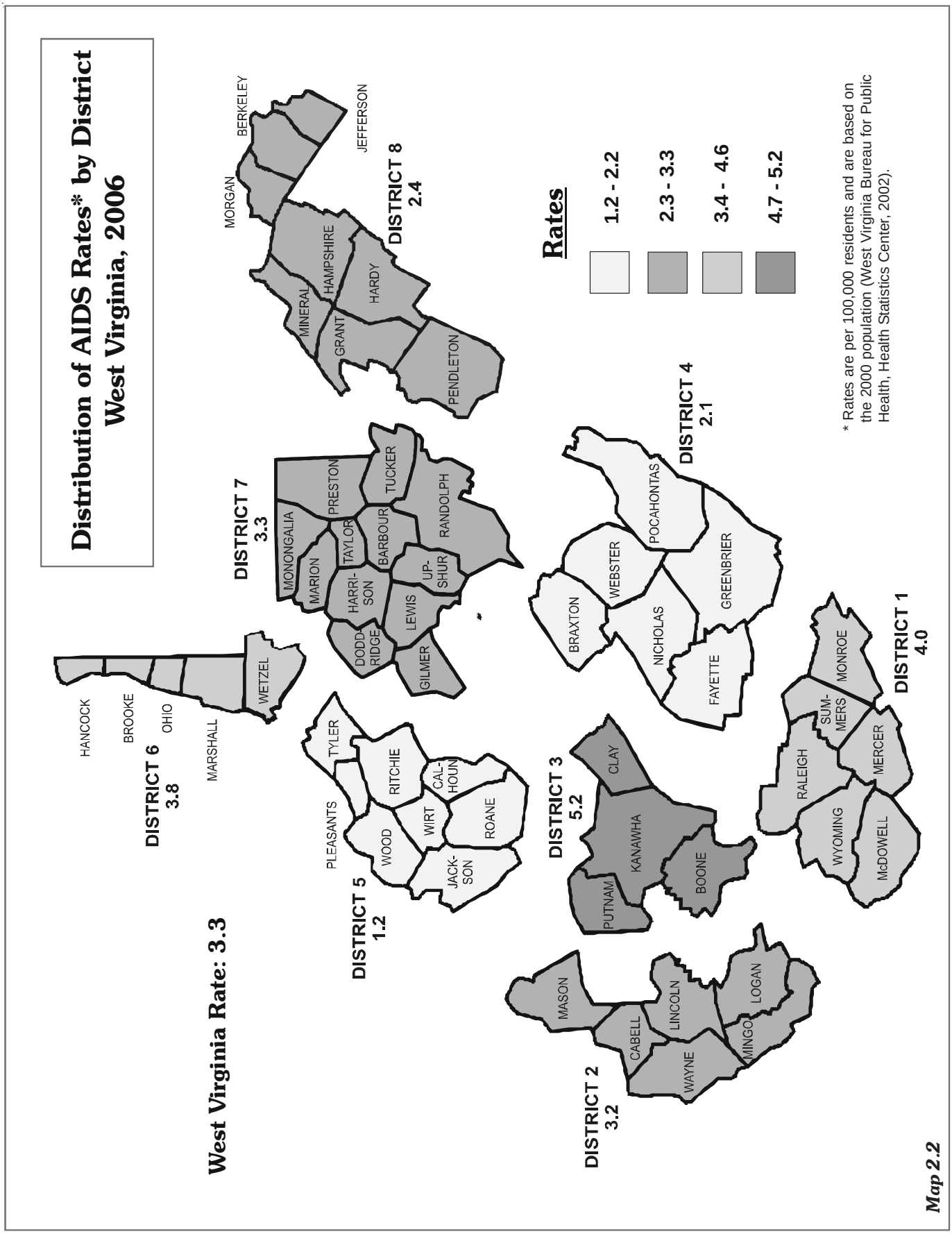
1. MSM is 43 cases of 100 and the age ranges from 13- to over 49. Whites represent 77% (33/43) of the infected while blacks represent 19% (8/43.

2. Heterosexual infections range from 20- over 49 with 66% (12518 of the infection in 20-39 groups. 83% (15/18) are female and black comprise 44% (8/18) of the total infected population.

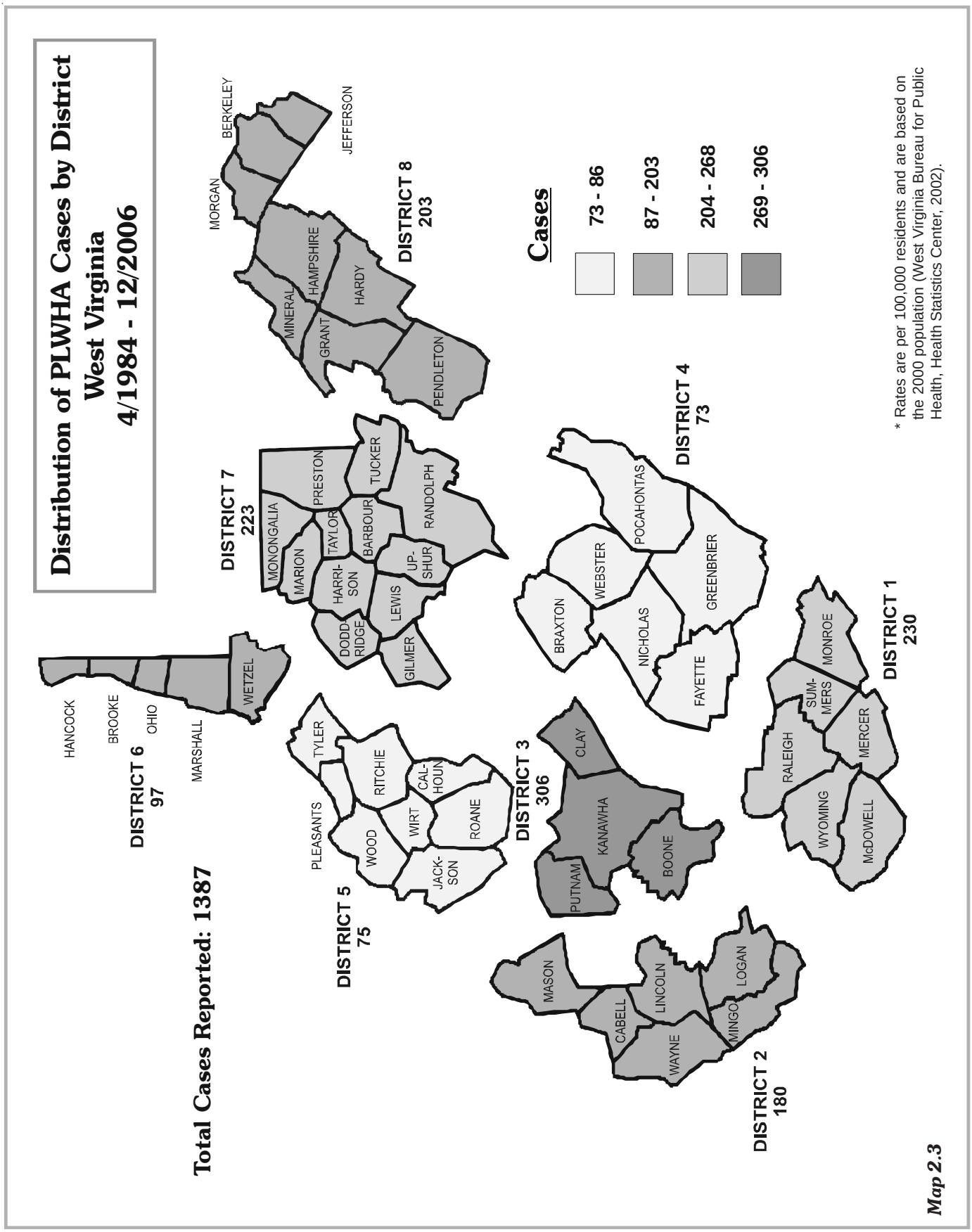
3. IDUs ages are from 20- over 49 range with 30-49 comprising 43% (6/14 infected. 57% (8/14) are male and black are 71% (10/14) of the infected populations (Table 2.44).

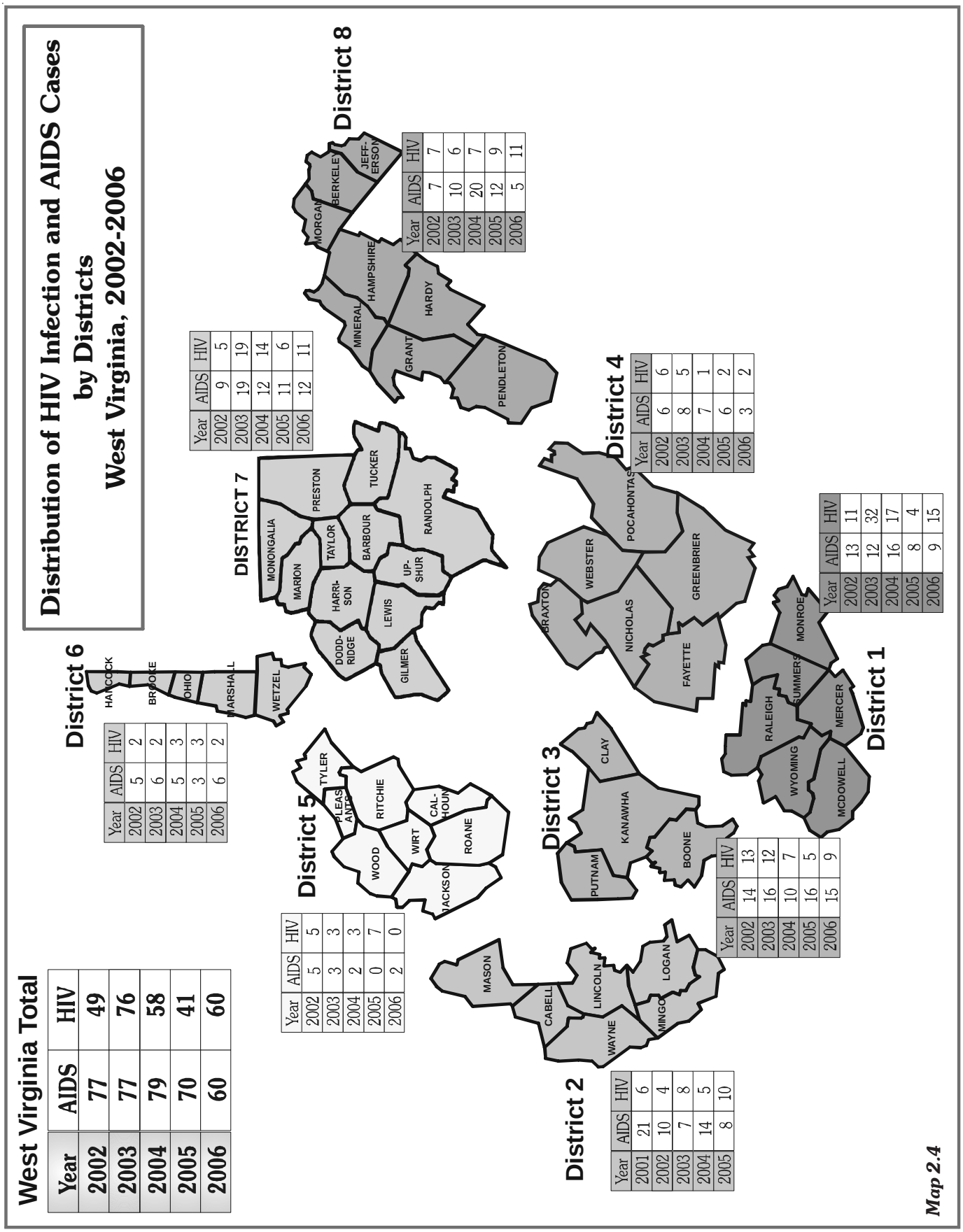

Distribution of AIDS Cases by District
West Virginia
4/1984 - 12/2006
Total Cases Reported: 1387
DISTRICT 6
125
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
DISTRICT 7
215
MONONGALIA
MARION
PRESTON
TAYLOR
TUCKER
HARRI-SON
BARBOUR
UP-SHUR
RANDOLPH
DODD RIDGE
LEWIS
GILMER
DISTRICT 8
199
MORGAN
BERKELEY
JEFFERSON
MINERAL
HAMPSHIRE
HARDY
GRANT
PENDLETON
DISTRICT 4
92
BRAXTON
WEBSTER
POCAHONTAS
NICHOLAS
GREENBRIER
FAYETTE
DISTRICT 1
181
MONROE
SUM-MERS
MERCER
RALEIGH
WYOMING
McDOWELL
DISTRICT 5
90
TYLER
PLEASANTS
RITCHIE
WOOD
WIRT
CAL-HOUN
ROANE
JACK-SON
DISTRICT 3
332
CLAY
KANAWHA
PUTNAM
BOONE
DISTRICT 2
220
MASON
CABELL
LINCOLN
LOGAN
WAYNE
MINGO
Cases
90 - 109
110 - 199
200 - 276
277 - 332

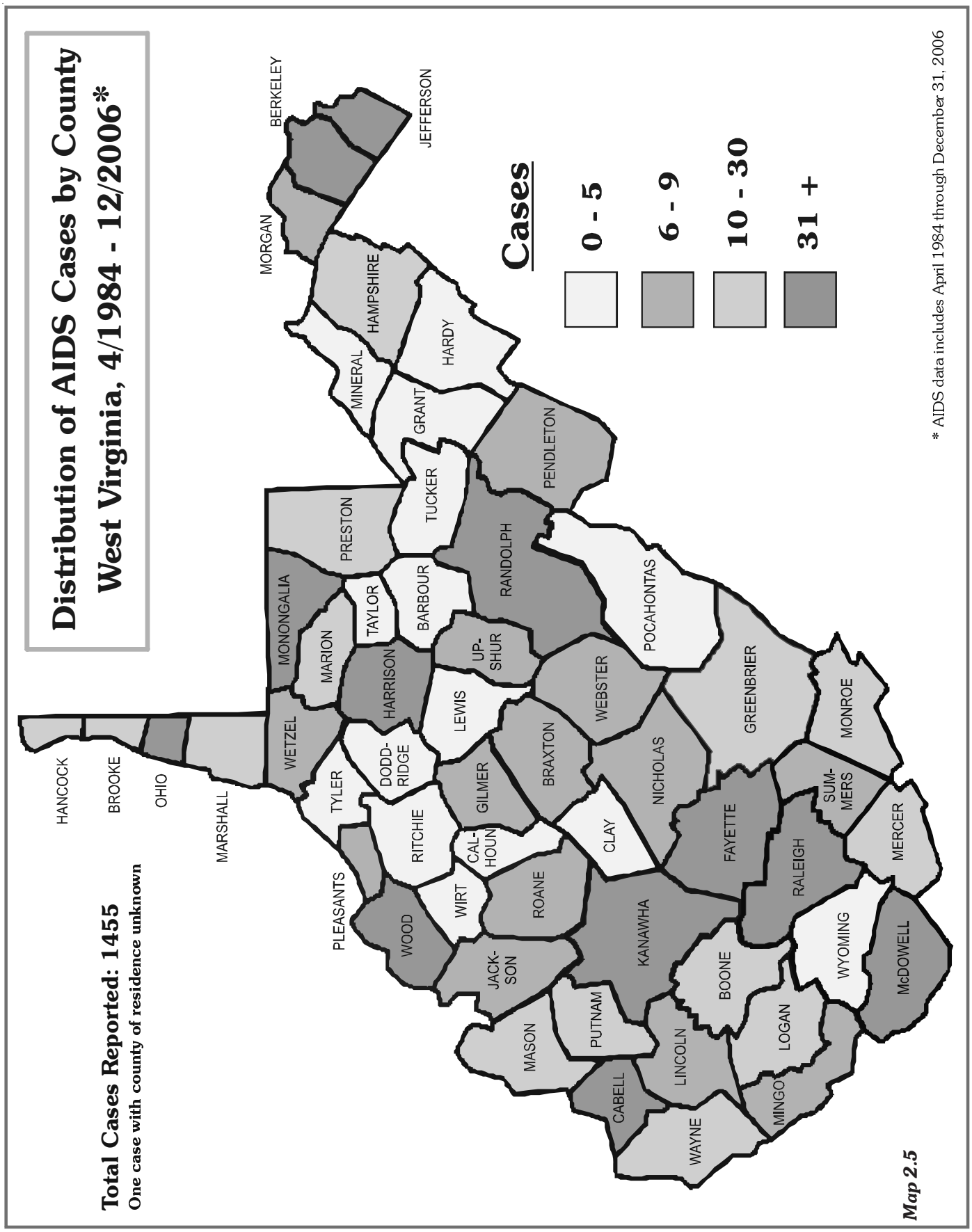
Map 2.1


Distribution of AIDS Rates* by District
West Virginia, 2006
West Virginia Rate: 3.3
DISTRICT 1
4.0
DISTRICT 2
3.2
DISTRICT 3
5.2
DISTRICT 4
2.1
DISTRICT 5
1.2
DISTRICT 6
3.8
DISTRICT 7
3.3
DISTRICT 8
2.4
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
TYLER
PLEASANTS
WOOD
RITCHIE
WIRT
CAL-HOUN
JACK-SON
ROANE
DODD-RIDGE
GILMER
LEWIS
HARRI-SON
UP-SHUR
MARION
MONONGALIA
TAYLOR
BARBOUR
PRESTON
TUCKER
RANDOLPH
MORGAN
BERKELEY
JEFFERSON
MINERAL
GRANT
HAMPSHIRE
HARDY
PENDLETON
BRAXTON
WEBSTER
POCAHONTAS
NICHOLAS
GREENBRIER
FAYETTE
CLAY
PUTNAM
KANAWHA
BOONE
MASON
CABELL
LINCOLN
WAYNE
MINGO
LOGAN
RALEIGH
SUM-MERS
MONROE
WYOMING
MERCER
McDOWELL
Rates
1.2 - 2.2
2.3 - 3.3
3.4 - 4.6
4.7 - 5.2
* Rates are per 100,000 residents and are based on the 2000 population (West Virginia Bureau for Public Health, Health Statistics Center, 2002).

Map 2.2


Distribution of PLWHA Cases by District
West Virginia
4/1984 - 12/2006
Total Cases Reported: 1387
DISTRICT 6
97
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
DISTRICT 7
223
MONONGALIA
MARION
PRESTON
TAYLOR
BARBOUR
TUCKER
HARRI-SON
UP-SHUR
RANDOLPH
DODD-RIDGE
LEWIS
GILMER
DISTRICT 8
203
MORGAN
BERKELEY
JEFFERSON
MINERAL
HAMPSHIRE
HARDY
GRANT
PENDLETON
DISTRICT 5
75
TYLER
PLEASANTS
RITCHIE
WOOD
WIRT
CAL-HOUN
ROANE
JACK-SON
DISTRICT 3
306
CLAY
KANAWHA
PUTNAM
BOONE
DISTRICT 4
73
BRAXTON
WEBSTER
POCAHONTAS
NICHOLAS
GREENBRIER
FAYETTE
DISTRICT 1
230
MONROE
SUM-MERS
MERCER
RALEIGH
WYOMING
McDOWELL
DISTRICT 2
180
MASON
CABELL
LINCOLN
LOGAN
WAYNE
MINGO
Cases
73 - 86
87 - 203
204 - 268
269 - 306
* Rates are per 100,000 residents and are based on the 2000 population (West Virginia Bureau for Public Health, Health Statistics Center, 2002).
Map 2.3


Distribution of HIV Infection and AIDS Cases
by Districts
West Virginia, 2002-2006
District 8
District 7
District 6
District 5
District 4
District 3
District 2
District 1
MORGAN
BERKELEY
JEFF-ERSON
MINERAL
HAMPSHIRE
HARDY
GRANT
PENDLETON
MONONGALIA
PRESTON
TUCKER
MARION
TAYLOR
BARBOUR
RANDOLPH
HARRI-SON
UP-SHUR
DODD-RIDGE
LEWIS
GILMER
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
TYLER
PLEAS-ANTS
RITCHIE
WOOD
WIRT
CAL-HOUN
ROANE
JACKSON
BRAXTON
WEBSTER
POCAHONTAS
NICHOLAS
GREENBRIER
FAYETTE
CLAY
PUTNAM
KANAWHA
BOONE
MASON
CABELL
LINCOLN
LOGAN
WAYNE
MINGO
MONROE
RALEIGH
SUMMERS
MERCER
WYOMING
MCDOWELL
Year AIDS HIV
2002 9 5
2003 19 19
2004 12 14
2005 11 6
2006 12 11
Year AIDS HIV
2002 7 7
2003 10 6
2004 20 7
2005 12 9
2006 5 11
Year AIDS HIV
2002 6 6
2003 8 5
2004 7 1
2005 6 2
2006 3 2
Year AIDS HIV
2002 13 11
2003 12 32
2004 16 17
2005 8 4
2006 9 15
Year AIDS HIV
2002 14 13
2003 16 12
2004 10 7
2005 16 5
2006 15 9
Year AIDS HIV
2001 21 6
2002 10 4
2003 7 8
2004 14 5
2005 8 10
Year AIDS HIV
2002 5 2
2003 6 2
2004 5 3
2005 3 3
2006 6 2
Year AIDS HIV
2002 5 5
2003 3 3
2004 2 3
2005 0 7
2006 2 0
West Virginia Total
Year AIDS HIV
2002 77 49
2003 77 76
2004 79 58
2005 70 41
2006 60 60
Map 2.4


Distribution of AIDS Cases by County
West Virginia, 4/1984 - 12/2006*
Total Cases Reported: 1455
One case with county of residence unknown
Cases
0 - 5
6 - 9
10 - 30
31 +
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
TYLER
PLEASANTS
WOOD
RITCHIE
WIRT
JACK-SON
MASON
CABELL
WAYNE
PUTNAM
LINCOLN
KANAWHA
ROANE
CAL-HOUN
GILMER
DODD-RIDGE
LEWIS
BRAXTON
CLAY
NICHOLAS
FAYETTE
BOONE
LOGAN
MINGO
WYOMING
RALEIGH
SUM-MERS
MERCER
McDOWELL
MONROE
GREENBRIER
POCAHONTAS
WEBSTER
UP-SHUR
RANDOLPH
PENDLETON
HARRISON
MARION
MONONGALIA
TAYLOR
BARBOUR
TUCKER
PRESTON
GRANT
MINERAL
HAMPSHIRE
HARDY
MORGAN
BERKELEY
JEFFERSON
* AIDS data includes April 1984 through December 31, 2006
Map 2.5

HIV Infection in West Virginia

West Virginia HIV Infection Cases
1989 - 2006

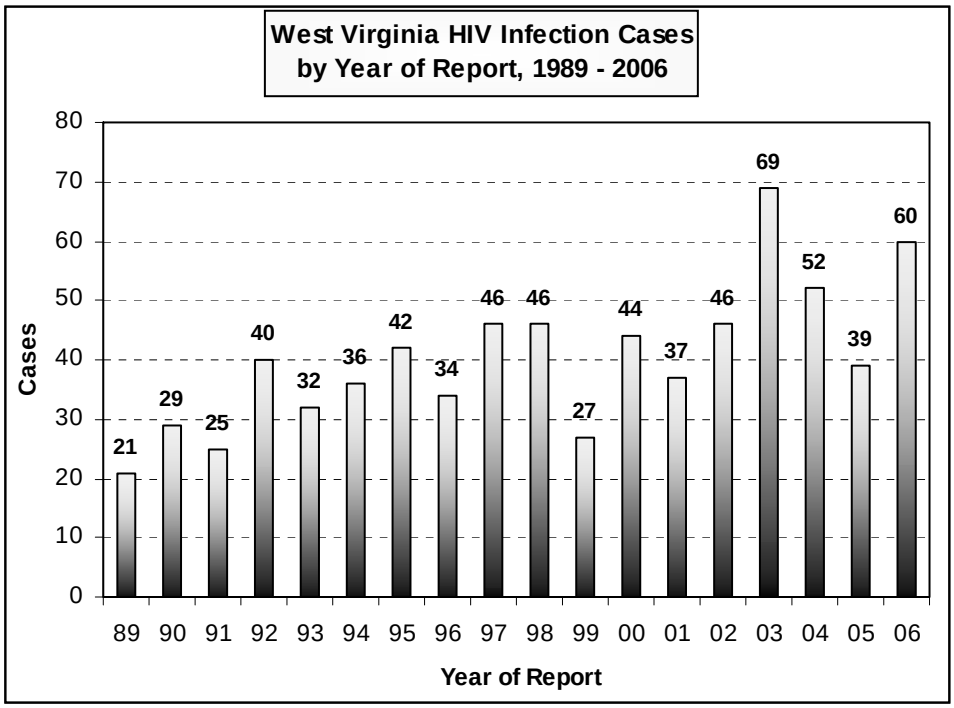


Figure 3.1

West Virginia HIV Infection Cases By Year of Report, 1989 - 2006																			
Year	**89**	**90**	**91**	**92**	**93**	**94**	**95**	**96**	**97**	**98**	**99**	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**Total**
Cases	21	29	25	40	32	36	42	34	46	46	27	44	37	46	69	52	39	60	**725**
% Changed		4	-2	10	-6	3	5	-6	10	0	-14	12	-6	8	26	-21	-12	21	

Table 3.1

Figure 3.1 displays the epidemic curve of reported HIV infection cases by year of report from 1989 through 2006.

During 1989-2006, a total of 725 cases of HIV infection were reported. Compared to the previous year 2005, there was a significant increase in the number of reported HIV infection cases in 2006 (60 cases in 2006 compared to 39 cases in 2005).

HIV data is constantly changing. When a previously reported HIV positive case is diagnosed with AIDS, the case is removed from the HIV data set and added to the data set of the AIDS cases. HIV infection case counts are generally less timely than reported AIDS cases. An important reason being that in many circumstances a person may be asymptomatic and may never get tested for HIV.

Active surveillance continues to monitor the status of the reported cases to determine if a change from HIV to AIDS has occurred. With the introduction of new medications (anti-retrovirals, protease inhibitors, combination therapies, and increased prophylaxis for opportunistic infections) to treat HIV disease, it is speculated that the period of time from HIV to AIDS will widen. This promises to lengthen the life-span of individuals living with HIV infection.

HIV Incidence

The HIV surveillance reports do not reflect the true incidence of all new infections since not everyone infected is tested and reported. In 2006, 60 new individuals were reported with HIV infection. This brought the cumulative number of individuals reported with HIV infection from 1989-2006 to 725 cases.

HIV became a reportable disease in January 1989. The number of cases reported fluctuate from year to year because the face of HIV infection is always changing. It is important to note that some of the increases and decreases in reporting was probably a result of better reporting from providers and their awareness about the HIV/AIDS epidemic. This likely occurred because of the implementation of required HIV infection reporting, changes in the AIDS case definition in 1993, and/or as a result of enhanced active surveillance by staff.

HIV Prevalence

Table 3.2 displays the collective number of persons living with HIV/AIDS from 1989 to 2006. The table also displays the HIV infection cases for persons newly reported with HIV and those persons living with HIV/AIDS.

The cumulative number of HIV infection and AIDS cases reported through December 31, 2006 totaled 2,180, of which 793 cases are deceased. Therefore, the total number of persons living with HIV reported to the West Virginia HIV/AIDS/STD Program is 1,387.

The comparison of the two groupings (reported vs. people living with HIV/AIDS) is very similar for HIV infection and AIDS, an indication that in a broad sense, the epidemic has not changed from recent years. It is important to keep in mind that because there can be a significant delay between HIV infection and testing/reporting, changes in the epidemic may take longer to be observed in surveillance data.

West Virginia AIDS and HIV Infection Cases and PLWHA by Year of Report, AIDS 1984-2006, HIV 1989-2006

Year of Report	AIDS			HIV (Not AIDS)			Total	PLWHA		Deceased	
	Total	Alive		Total	Alive			Alive			
		#	%		#	%		#	%	#	%
1984-91	**241**	10	4	**75**	61	81	**316**	71	22	245	78
1992	**44**	5	11	**40**	38	95	**84**	43	51	41	49
1993	**98**	17	17	**32**	30	94	**130**	47	36	83	64
1994	**89**	26	29	**36**	31	86	**125**	57	46	68	54
1995	**121**	48	40	**42**	36	86	**163**	84	52	79	48
1996	**110**	53	48	**34**	32	94	**144**	85	59	59	41
1997	**113**	69	61	**46**	40	87	**159**	109	69	50	31
1998	**85**	45	53	**46**	43	93	**131**	88	67	43	33
1999	**58**	41	71	**27**	27	100	**85**	68	80	17	20
2000	**47**	24	51	**44**	41	93	**91**	65	71	26	29
2001	**87**	62	71	**37**	37	100	**124**	99	80	25	20
2002	**77**	54	70	**46**	45	98	**123**	99	80	24	20
2003	**77**	66	86	**69**	69	100	**146**	135	92	11	8
2004	**79**	66	84	**52**	51	98	**131**	117	89	14	11
2005	**69**	66	96	**39**	39	100	**108**	105	97	3	3
2006	**60**	55	92	**60**	60	100	**120**	115	96	5	4
Total	**1,455**	**707**	**49**	**725**	**680**	**94**	**2,180**	**1,387**	**64**	**793**	**36**

Table 3.2

* AIDS data includes April 1984 through December 2006, and HIV data includes January 1989 through December 2006.

West Virginia HIV Infection Cases, 2002 - 2006

In order to monitor the characteristic of the epidemic, national and state surveillance systems include HIV infections and AIDS cases. During 2006, 60 new HIV infection cases were reported in West Virginia. This number represents the new HIV case reports. It does not include HIV diagnosis reported as AIDS cases.

West Virginia HIV Infection Cases Comparison by Year of Report, 2002 - 2006

Characteristic	2002		2003		2004		2005		2006		Total		Cumulative*	
Age Group	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Under 5	0	0	0	0	1	2	0	0	0	0	1	0	**4**	**1**
5-12	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**
13-19	4	9	3	4	2	4	1	3	6	10	16	6	**42**	**6**
20-29	13	28	18	26	17	33	17	44	21	35	86	32	**257**	**35**
30-39	19	41	25	36	14	27	6	15	17	28	81	30	**253**	**35**
40-49	8	17	17	25	14	27	9	23	11	18	59	22	**123**	**17**
50+	2	4	6	9	4	8	6	15	5	8	23	9	**46**	**6**
Total	**46**	**100**	**69**	**100**	**52**	**100**	**39**	**100**	**60**	**100**	**266**	**100**	**725**	**100**
Gender														
Male	29	63	38	55	30	58	31	79	38	63	166	62	**505**	**70**
Female	17	37	31	45	22	42	8	21	22	37	100	38	**220**	**30**
Total	**46**	**100**	**69**	**100**	**52**	**100**	**39**	**100**	**60**	**100**	**266**	**100**	**725**	**100**
Race														
White	34	74	24	35	23	44	36	92	41	68	158	59	**434**	**60**
Black	10	22	43	62	29	56	3	8	18	30	103	39	**272**	**37**
Other/Unk.	2	4	2	3	0	0	0	0	1	2	5	2	**19**	**3**
Total	**46**	**100**	**69**	**100**	**52**	**100**	**39**	**100**	**60**	**100**	**266**	**100**	**725**	**99**
Risk Behavior														
MSM	22	48	11	16	16	31	28	72	32	53	109	41	**314**	**43**
IDU	10	22	23	33	12	23	4	10	5	8	54	20	**139**	**19**
MSM/IDU	0	0	1	1	0	0	0	0	0	0	1	0	**18**	**2**
Adult Hemoph.	0	0	0	0	0	0	0	0	0	0	0	0	**5**	**1**
Heterosexual	6	13	21	30	10	19	4	10	9	15	50	19	**121**	**17**
Transfusion	0	0	0	0	1	2	0	0	0	0	1	0	**6**	**1**
NIR*/Other	8	17	13	19	12	23	3	8	14	23	50	19	**118**	**16**
Pediatric	0	0	0	0	1	2	0	0	0	0	1	0	**4**	**1**
Total	**46**	**100**	**69**	**100**	**52**	**100**	**39**	**100**	**60**	**100**	**266**	**100**	**725**	**100**

* HIV data includes January 1989 through December 31, 2006.

Table 3.3

Comparing 2006 to the previous years, there was a 21% increase in the reported HIV infection cases (39 cases in 2005 compared to 60 cases in 2006), while these numbers declined in 2005 when compared to previous years (69 cases in 2003 to 52 cases in 2004 to 39 cases in 2005).

The highest number of HIV cases were reported in the 20-29 age group (248 cases), closely followed by the 30-39 age group (243 cases), then 40-49 age group (118 cases). Comparing 2005 to the previous year, 30-39 age group showed a decline in the number of reported HIV cases (15 cases, 26%) to (6 cases, 15%).

When comparing males to females, the highest number of HIV infections were reported in males (481 cases) compared to females (211 cases).

Whites compared to blacks were more affected by the HIV infection (400 cases compared to 271 cases in blacks). Since blacks comprise only 3% of the state's population, it is important to note that they are disproportionately affected by the epidemic (39% of HIV cases between 2001-2005).

The highest percentage of the reported HIV infection cases were among the MSM risk behavior (292 cases or 42%), followed by IDU risk behavior (141 cases or 20%), and heterosexual contact (119 cases or 17%). Comparing 2005 to the previous year, HIV infections due to MSM risk behavior showed an increase 18 cases in 2004 compared to 28 cases in 2005).

West Virginia HIV Infection Cases Among MSM* by Age Group and Race, 1992-96, 1997-01, 2002-06

West Virginia HIV Infection Cases Among MSM* by Age Group, 1992 - 2006								
Age Group	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
13-19	2	3	4	4	4	4	10	3
20-29	35	44	39	39	42	39	116	40
30-39	35	44	35	35	31	28	101	35
40-49	7	9	17	17	23	21	47	16
50+	0	0	6	6	9	8	15	5
Total Cases	**79**	**100**	**101**	**100**	**109**	**100**	**289**	**100**
% Cases	**27**		**35**		**38**		**100**	

Table 3.4

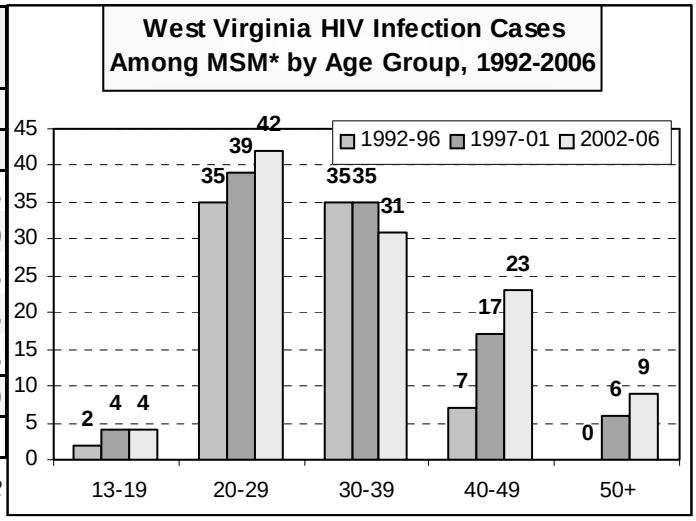


Figure 3.2

West Virginia HIV Infection Cases Among MSM* by Race, 1992 - 2006								
Race	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
White	64	81	81	80	91	83	236	82
Black	13	16	18	18	17	16	48	17
Other	2	3	2	2	1	1	5	2
Total Cases	**79**	**100**	**101**	**98**	**109**	**99**	**289**	**100**
% Cases	**27**		**35**		**38**		**100**	

Table 3.5

*__MSM__=__M__en who have __S__ex with __M__en.

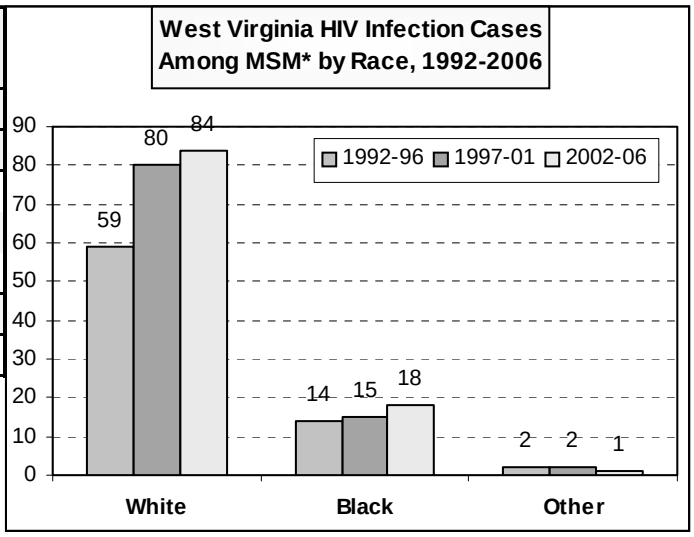


Figure 3.3

Tables 3.4 and 3.5 display West Virginia HIV infection cases reported with a risk behavior of Men who have Sex with Men (MSM) by age group and race respectively, for three 5-year aggregates of data, 1992-96, 1997-01 and 2002-06.

The 20-29 age group had the highest number of reported HIV cases due to MSM risk behavior (116 cases or 40%). This was followed closely by the 30-39 age group (101 cases or 35%) and 40-49 age group (47 cases or 16%).

Between 1992-2006, the number of MSM HIV infection cases was greater among whites (236 cases or 82%), than blacks (48 cases or 17%). When comparing the three 5-year groupings, there was a noticable increase in HIV cases among white MSM between 1992-96 to 1997-01 groupings (64 cases to 81 cases). Comparing 1997-01 and 2002-06 groupings, there was an increase in the reported HIV cases in white MSM (81 cases to 91 cases). The MSM HIV cases in blacks showed a gradual increase in the three 5 year groupings (13 cases in 1992-96 to 18 cases in 1997-01 and declined to 18 cases in 2002-06).

West Virginia HIV Infection Cases Among IDU* by Age Group, Gender and Race, 1992-96, 1997-01, 2002-06

West Virginia HIV Infection Cases Among IDU* by Age Group, 1992 - 2006								
Age Group	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
13-19	0	0	1	3	2	4	3	3
20-29	6	19	9	26	13	24	28	24
30-39	16	52	13	38	17	31	46	39
40-49	6	19	9	26	16	30	31	26
50+	3	10	2	6	6	11	11	9
Total Cases	**31**	**100**	**34**	**100**	**54**	**100**	**119**	**100**
% Cases	**26**		**29**		**45**		**100**	

Table 3.6

West Virginia HIV Infection Among IDU* by Gender, 1992 - 2006								
Gender	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
Male	16	52	18	53	20	37	54	45
Female	15	48	16	47	34	63	65	55
Total Cases	**31**	**100**	**34**	**100**	**54**	**100**	**119**	**100**
% Cases	**26**		**29**		**45**		**100**	

Table 3.7

West Virginia HIV Infection Cases Among IDU* by Race, 1992 - 2006								
Race	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
White	7	23	15	44	22	41	44	37
Black	23	74	18	53	31	57	72	61
Other	1	3	1	3	1	2	3	3
Total Cases	**31**	**100**	**34**	**97**	**54**	**98**	**119**	**100**
% Cases	**26**		**29**		**45**		**100**	

Table 3.8

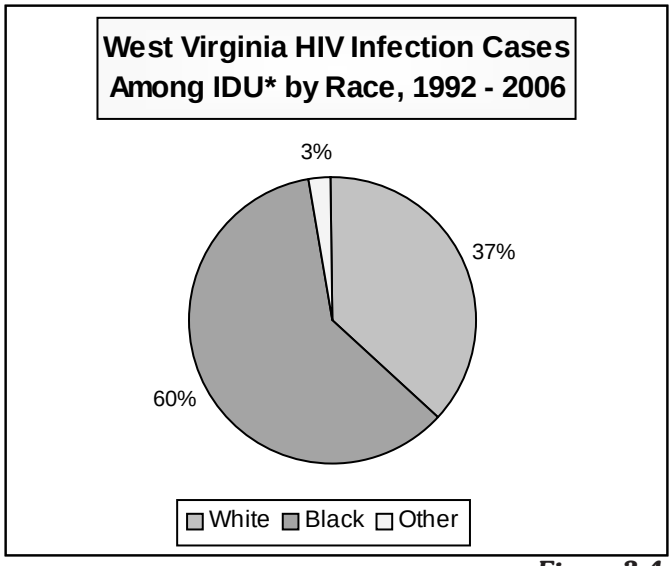


Figure 3.4

***IDU**=**I**njecting **D**rug **U**ser.

Table 3.6 displays West Virginia's reported HIV infection cases by IDU risk behavior and age group for three five-year aggregates of data. The 30-39 age group had the highest number of reported HIV cases due to IDU risk behavior (46 cases or 39%), followed by the 40-49 age group (31 cases or 26%).

Table 3.7 displays West Virginia's reported HIV infection cases by gender for three five-year aggregate of data. There was an increase in reported HIV infection cases among females with IDU risk behavior during the most recent time period (16 cases or 47%) in 1997-01 to (34 cases or 63%) in 2002-06).

Most HIV infection cases with an IDU risk behavior occurred among blacks (72 cases or 61%) compared to whites (44 cases or 37%). (Table 3.8).

West Virginia HIV Infection Cases Among Persons With Heterosexual Contact by Age Group, Gender, and Race 1992-96, 1997-01, 2002-06

West Virginia HIV Infection Cases Among Heterosexuals by Age Group, 1992 - 2006								
Age Group	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
13-19	2	6	2	8	5	10	9	8
20-29	13	36	11	42	19	38	43	38
30-39	13	36	8	31	14	28	35	31
40-49	7	19	2	8	10	20	19	17
50+	1	3	3	12	2	4	6	5
Total Cases	**36**	**100**	**26**	**100**	**50**	**100**	**112**	**100**
% Cases	**32**		**23**		**45**		**100**	

Table 3.9

West Virginia HIV Infection Cases Among Heterosexuals by Gender, 1992 - 2006								
Gender	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
Male	11	31	5	19	10	20	26	23
Female	25	69	21	81	40	80	86	77
Total Cases	**36**	**100**	**26**	**100**	**50**	**100**	**112**	**100**
% Cases	**32**		**23**		**45**		**100**	

Table 3.10

West Virginia HIV Infection Cases Among Heterosexuals by Race, 1992 - 2006								
Race	1992-96		1997-01		2002-06		Total	
	#	%	#	%	#	%	#	%
White	13	36	18	69	15	30	46	41
Black	21	58	6	23	34	68	61	54
Others	2	6	2	9	1	2	5	5
Total Cases	**36**	**94**	**26**	**92**	**50**	**98**	**112**	**96**
% Cases	**32**		**23**		**45**		**100**	

Table 3.11

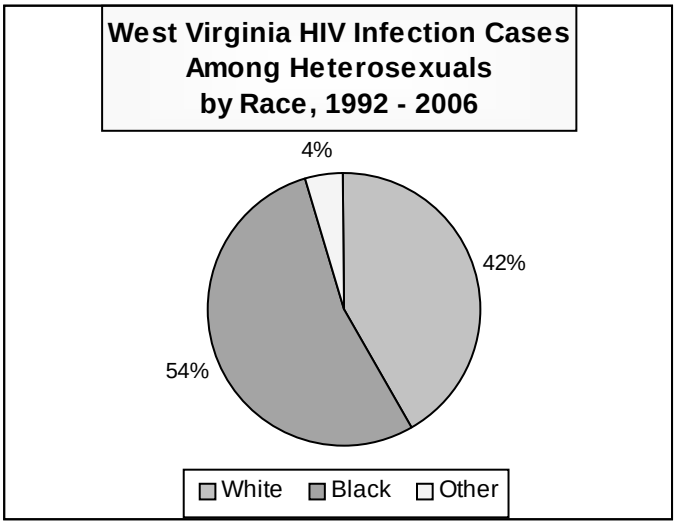


Figure 3.5

Tables 3.9, 3.10, and 3.11 display reported HIV infection cases among persons with heterosexual contact by age group, gender, and race in the three five-year aggregates of data.

During the three five-year periods, there was a documented increase in the number of reported HIV infection cases among heterosexual contacts during the most recent time period (26 cases or 23%) in 1997-01 to (50 cases or 45%) in 2002-06.

The highest number of reported HIV cases among heteosexual contact risk behavior was in the 20-29 age group (43 cases or 38%) followed by 30-39 age group (35 cases or 31%) and 40-49 age group (19 cases or 17%).

Females accounted for the majority of reported HIV cases during the three five-year periods (25 cases or 69% in 1992-96; 21 cases or 81% in 1997-01; and 40 cases or 80% in 2002-06). Overall females accounted for the majority of reported HIV cases during the three five-year period compared to males (86 cases or 77% in females compared to 26 cases or 23% in males).

When comparing race, black heterosexuals reported the highest occurrence of reported HIV cases during the three five-year periods compared to whites (61 cases or 54% in blacks compared to 46 cases or 41% in whites). (Table 3.11)

West Virginia HIV Infection Cases by Age Group and Gender, 1989 - 2006

West Virginia HIV Infection Cases by Age Group and Gender, 1989 - 2006						
Age Group	Male		Female		Total	
	#	%	#	%	#	%
0-12	3	1	1	0	4	1
13-19	17	3	25	11	42	6
20-29	179	35	78	35	257	35
30-39	178	35	75	34	253	35
40-49	92	18	31	14	123	17
50+	36	7	10	5	46	6
Total Cases	**505**	**100**	**220**	**100**	**725**	**100**
% Cases	**70**		**30**		**100**	

Table 3.12

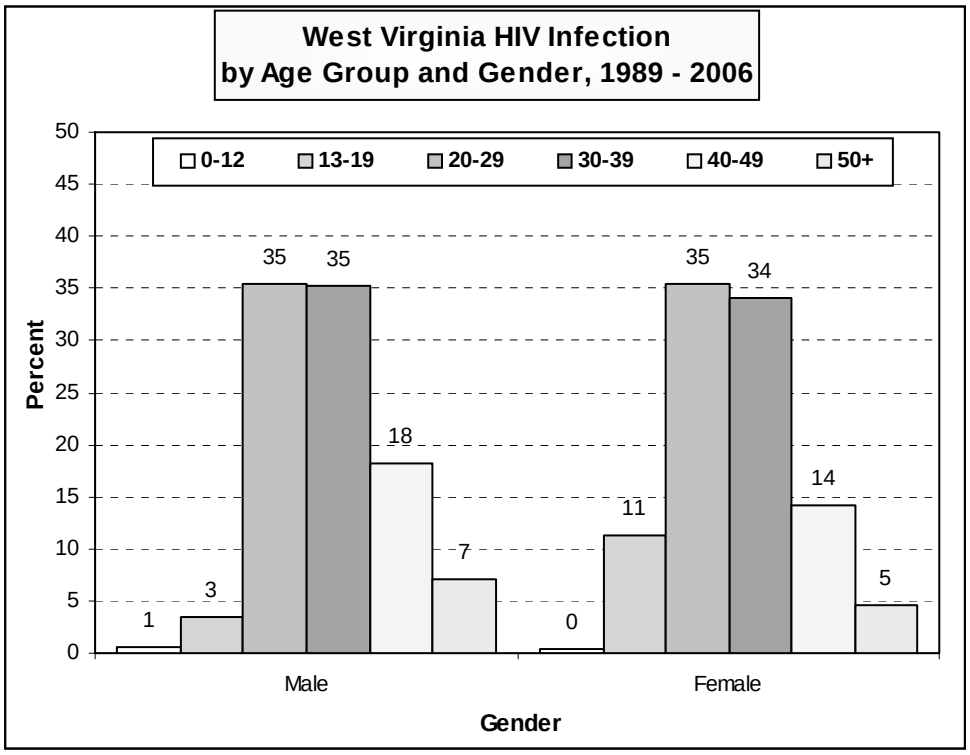


Figure 3.6

Data from 1989 through 2006 indicate that males accounted for 70% of the total reports of HIV infection, compared to 30% of reported HIV cases in females.

The highest number of reported HIV cases were in the 20-29 age group (257 cases or 35%) followed closely by the 30-39 age group (253 cases or 35%) and 40-49 age group (123 cases or 17%). (Figure 3.12).

West Virginia HIV Infection Cases by Age Group and Race, 1989 - 2006

Table 3.13

West Virginia HIV Infection Cases by Age Group and Race, 1989 - 2006								
Age Group	White		Black		Other		Total	
	#	%	#	%	#	%	#	%
0-12	3	1	1	0	0	0	4	1
13-19	12	3	28	10	2	10	42	6
20-29	166	39	81	30	10	48	257	35
30-39	151	35	96	35	6	29	253	35
40-49	72	17	49	18	2	10	123	17
50+	27	6	18	7	1	5	46	6
Total Cases	**431**	**100**	**273**	**100**	**21**	**100**	**725**	**100**
% Cases	**59**		**38**		**3**		**100**	

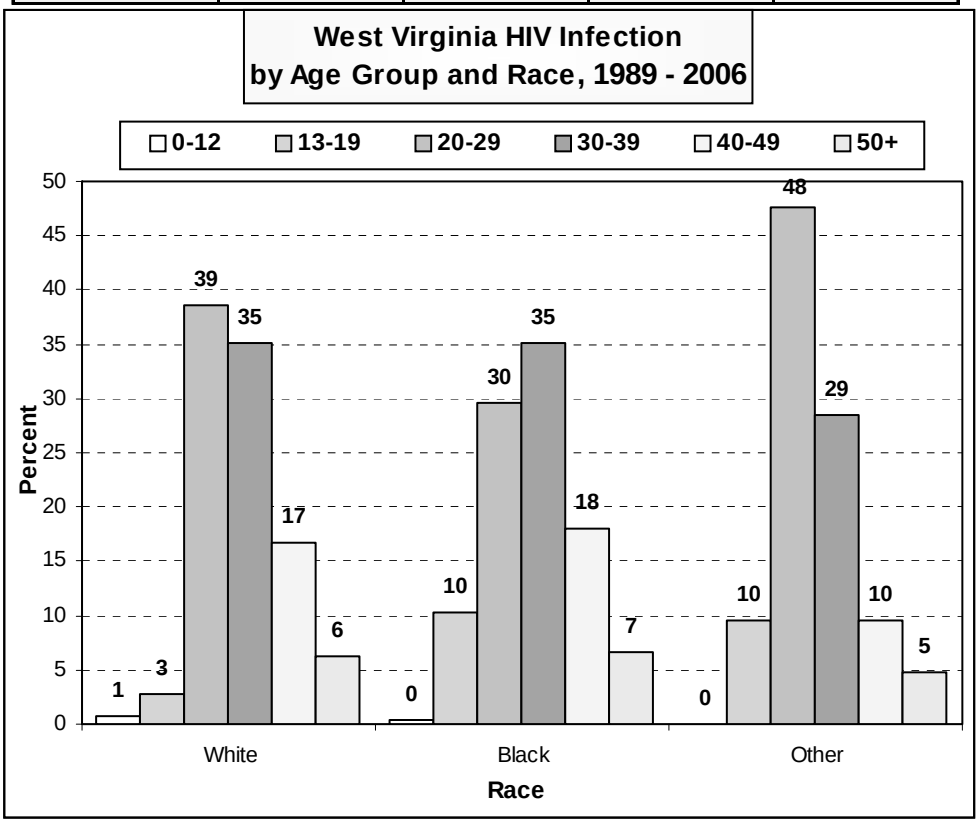


Figure 3.7

Table 3.13 and Figure 3.7 display HIV cases by age group and race from 1989 through 2006.

Blacks with HIV infection in West Virginia were disproportionately affected by the HIV disease comprising only 3% of the state's population but 38% of the reported HIV cases.

When looking at HIV by age group and race, whites and blacks were more heavily affected in the 20-29 and 30-39 age groups. The highest number of HIV cases among blacks were reported in the 30-39 age group (96 cases or 35%), while 20-29 age group account for the highest among whites (166 cases or 39%).

West Virginia HIV Infection Cases by Risk Behavior and Gender 2002 - 2006

West Virginia HIV Infection Cases Risk Behavior and Gender 2002 - 2006																						
Risk Behavior	2002				2003				2004				2005				2006				Total	
	M~		F^		M		F		M		F		M		F		M		F		M	F
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	#
MSM	22	76	0	0	11	29	0	0	16	53	0	0	28	90	0	0	32	84	0	0	109	0
IDU	4	14	6	35	11	29	12	39	3	10	9	41	1	3	3	38	1	3	4	18	20	34
MSM/IDU	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Coagualtion Disorder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heterosexual Contact	0	0	6	35	7	18	14	45	3	10	7	32	0	0	4	50	0	0	9	41	10	40
Transfusion/Transplt	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	1	0
NIR/Others*	3	10	5	29	8	21	5	16	6	20	6	27	2	6	1	13	5	13	9	41	24	26
Mother with HIV Risk	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	1	0
TOTAL	**29**	**100**	**17**	**100**	**38**	**100**	**31**	**100**	**30**	**100**	**22**	**100**	**31**	**100**	**8**	**100**	**38**	**100**	**22**	**100**	**166**	**100**

~ Male ^ Female

* No Risk Indentified

Table 3.14

Table 3.14 displays HIV infection cases by risk behavior and gender for 2002-06.

In males, the highest number of reported HIV cases were seen in MSM risk behavior (109 cases), followed by IDU risk behavior (20 cases) and (24 cases) with NIR or reclassified to other risks that are listed.

The trends for females should be reviewed carefully, due to the small numbers of cases reported during these last five years. Heterosexual contact with an at-risk partner accounted for the highest number of HIV cases in women (40 cases), followed by IDU risk behavior (34 cases) and NIR (26 cases).

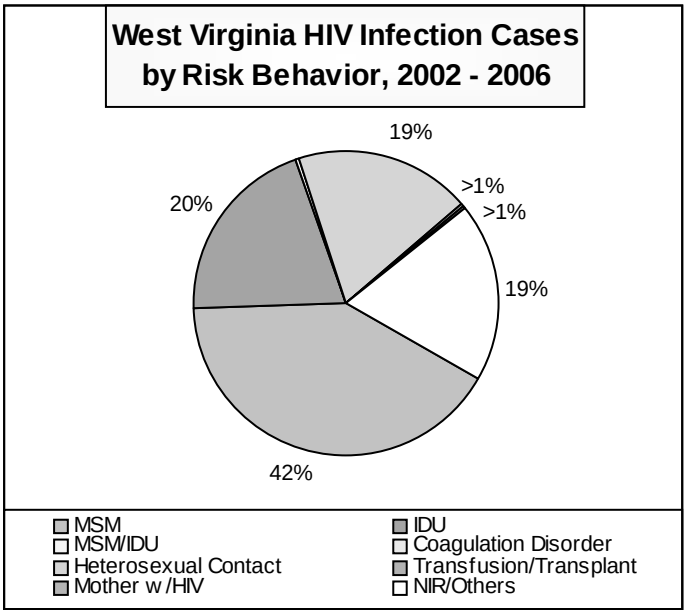


Figure 3.8

West Virginia HIV Infection Cases by Risk Behavior and Gender, 1989-2006

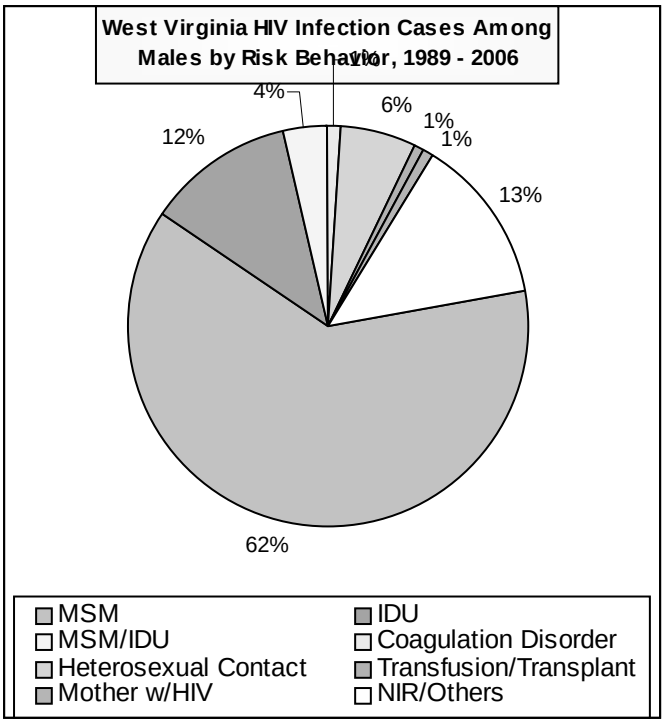


Figure 3.9

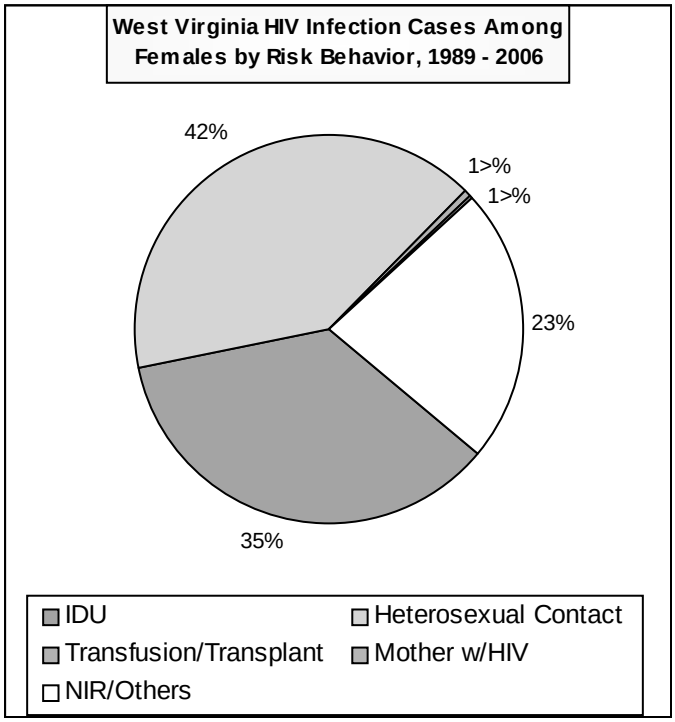


Figure 3.10

Figures 3.9 and 3.10 display proportion of HIV infection cases among males and females by risk behavior from 1989 - December 2006.

From 1989 - 2006, MSM risk behavior accounted for the highest number of HIV infections (62%) in males. This was followed by NIR 13% and IDU risk behavior with 12% of reported HIV infections in West Virginia. (Figure 3.9)

From 1989-2006, heterosexual contact with an at-risk male accounted for the highest number of HIV infections in females (42%). This was followed by IDU risk factor which accounted for 35% and NIR 23% of HIV infections in females.

When comparing IDU risk factor among males and females, the highest number of HIV cases were reported in females (35%) compared to only 12% HIV cases in males.

HIV infection cases with no identified risk behavior was higher among females compared to males (23% in females compared to 13% in males). Females compared to men may be more reluctant to reveal their risk behavior or don't know their partner's risk behavior.

West Virginia HIV Infection Cases by Risk Behavior and Race, 1989-2006

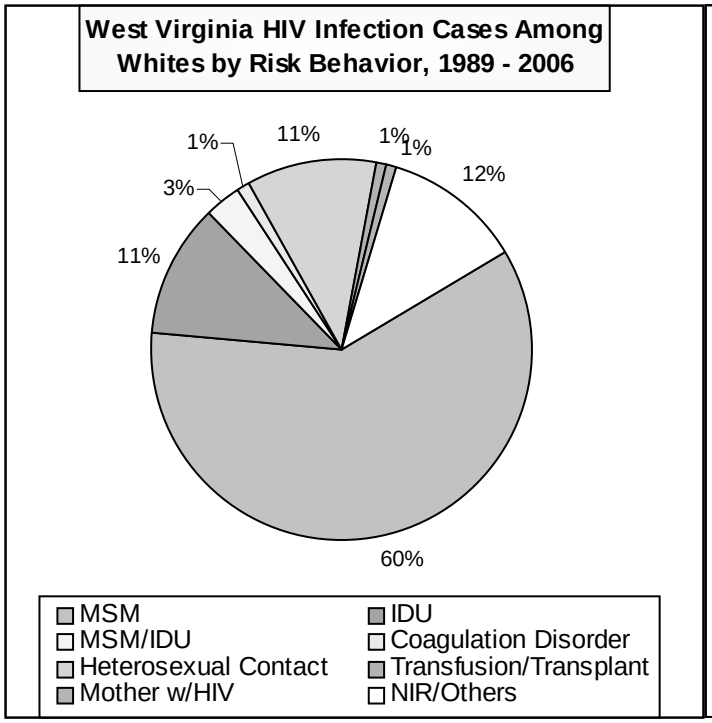


Figure 3.11

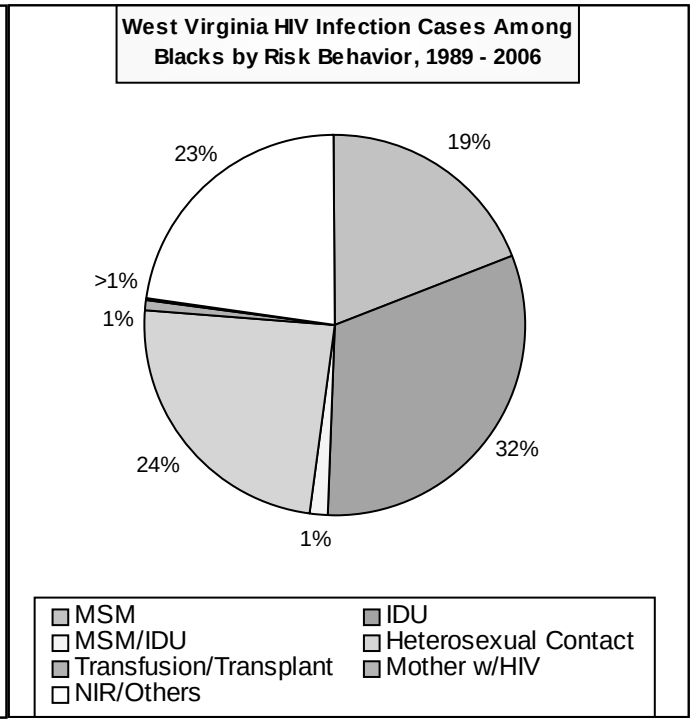


Figure 3.12

Figures 3.11 and 3.12 show distribution of West Virginia HIV infection cases among whites and blacks by risk behavior.

From 1989 through 2006, 60% of white HIV infection cases reported MSM as their risk behavior, followed by NIR 12%, and heterosexual contact and IDU at both at 11% each for a combined total of 94% of the reported HIV cases among the white population. (Figure 3.11)

During the same time period (1989-06), 32% of blacks reported with HIV infection were due to Injecting Drug Use (IDU) risk behavior (Figure 3.12). MSM risk behavior accounted for 19% of the HIV cases in blacks, compared to 60% among whites. HIV infection due to heterosexual contact accounted for 24% of cases in blacks, compared to 11% among whites. HIV infection cases with no identified risk behavior was higher among blacks compared to whites (23% in blacks compared to 12% in whites).

Note: Percent in pie charts may not add up to 100% due to rounding.

West Virginia HIV infection Cases Among Males by Risk Behavior and Race, 2002 - 2006

West Virginia HIV Infection Cases Among Males by Risk Behavior and Race, 2002-2006

Risk Behavior	White		Black		Other		Total	
	#	%	#	%	#	%	#	%
MSM	92	75	17	40	0	0	109	66
IDU	9	7	11	26	0	0	20	12
MSM/IDU	0	0	1	2	0	0	1	1
Heterosexual Contact	1	1	9	21	0	0	10	6
Transfusion/Transplant	0	0	1	2	0	0	1	1
Mother with HIV Risk	1	1	0	0	0	0	1	1
NIR/Others	19	16	4	9	1	100	24	14
Total	**122**	**100**	**43**	**100**	**1**	**100**	**166**	**100**

Table 3.15

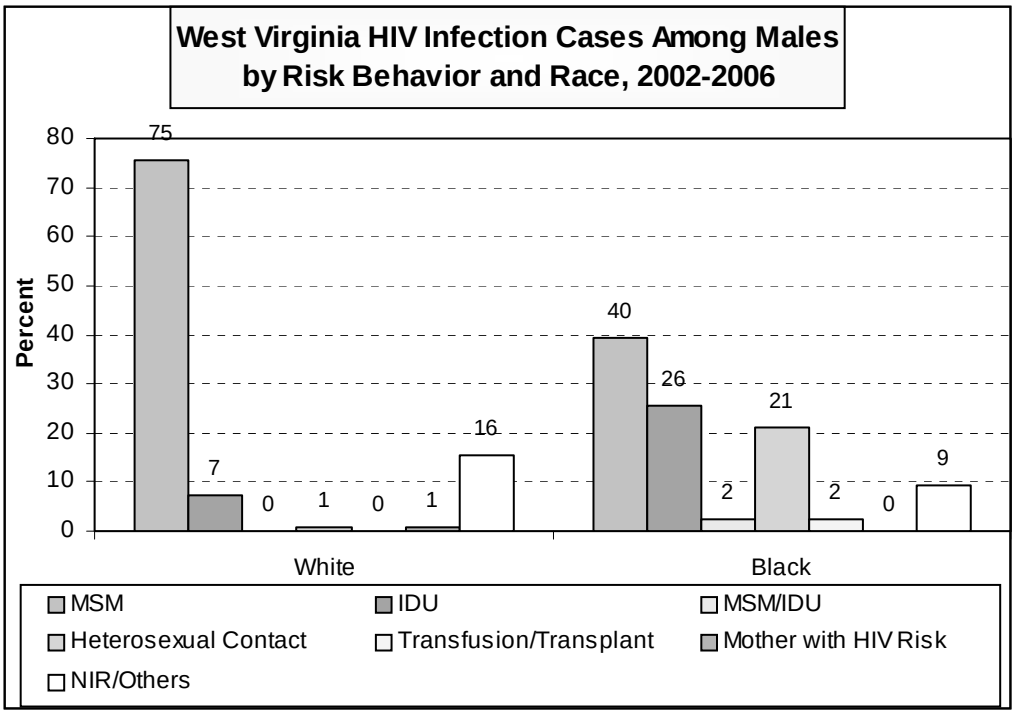


Figure 3.13

MSM risk behavior accounted for the highest number of HIV cases among males (66%), followed by NIR (14%), IDU risk behavior (12%), and heterosexual contact (6%) of HIV reported cases.

White males with HIV infection predominantly reported MSM (75%) as their risk behavior, whereas black males identified MSM at a lower percentage (40%). IDU risk behavior cases were higher among black males than white males (26% compared to 9%). NIRs* was in 24 of 166 HIV reported cases or 14%.

*The occurrence of NIRs and how they are investigated are explained in the technical notes.

West Virginia HIV infection Cases Among Females by Risk Behavior and Race, 2002 - 2006

West Virginia HIV Infection Cases Among Females by Risk Behavior and Race, 2002-2006								
Risk Behavior	White		Black		Other		Total	
	#	%	#	%	#	%	#	%
IDU	14	37	20	33	0	0	34	34
Heterosexual Contact	13	34	26	43	1	100	40	40
NIR/Others	11	29	15	25	0	0	26	26
Total	**38**	**100**	**61**	**100**	**1**	**100**	**100**	**100**

Table 3.16

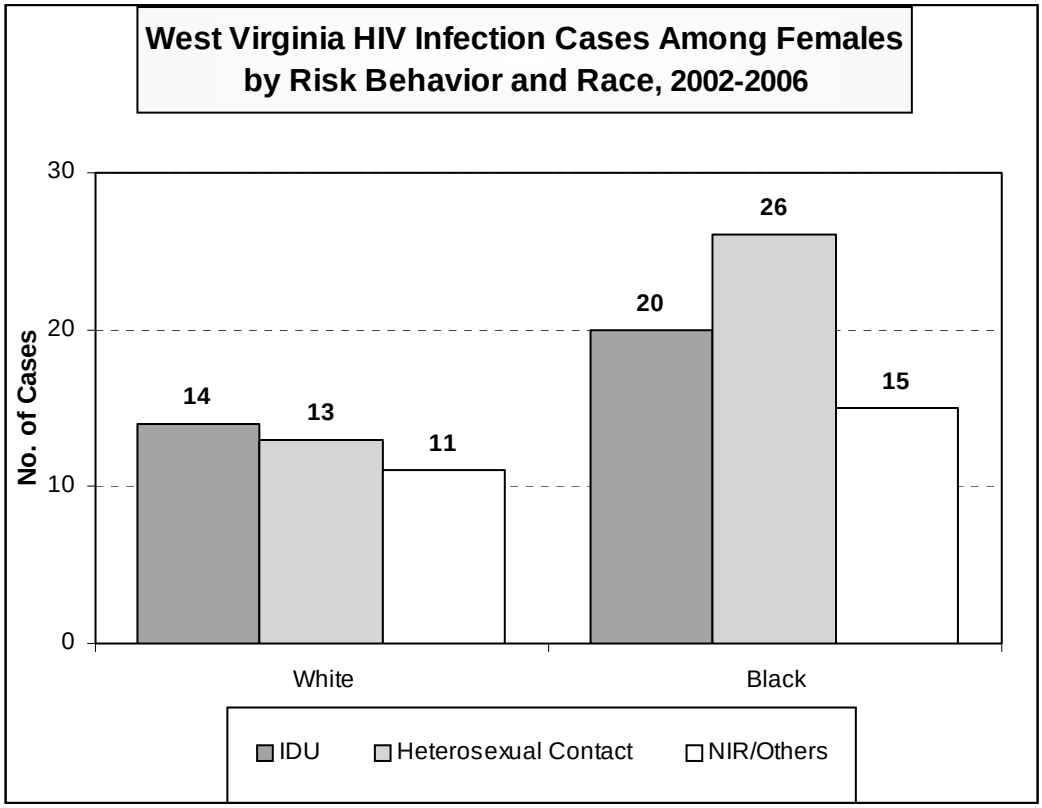


Figure 3.14

Table 3.6 and Figure 3.14 display the HIV cases in females by risk behavior and race.

Heterosexual contact with a high-risk individual was reported as the most commonly identified risk behavior for black females (43%) compare to (39%) for white females. Keeping in mind that the numbers are very small, IDU appears to be a more frequently reported risk behavior for white females (37%) than for black females (33%). There was one female case with heterosexual contact risk belonging to the other race category.

Note: Percent in columns may not add up to 100% due to rounding.

West Virginia HIV Infection Cases Comparison by Public Health District, 1989 - 2006

West Virginia HIV Infection Cases Comparison by Public Health District, Age Group, Gender, Race, and Risk Behavior 1989-2006																		
Characteristic	**Dist 1**		**Dist 2**		**Dist 3**		**Dist 4**		**Dist 5**		**Dist 6**		**Dist 7**		**Dist 8**		**Total**	
	#	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
Age Group																		
Under 5	1	1	0	0	1	1	0	0	0	0	0	0	1	1	1	1	4	1
5-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13-19	6	4	3	3	19	13	2	6	2	5	0	0	3	3	7	6	42	6
20-29	49	32	42	45	52	36	11	31	19	46	13	36	39	34	32	29	257	35
30-39	61	40	36	38	41	29	13	37	12	29	16	44	42	37	32	29	253	35
40-49	28	18	10	11	23	16	7	20	6	15	5	14	17	15	27	25	123	17
50+	7	5	3	3	7	5	2	6	2	5	2	6	12	11	11	10	46	6
Total	152	100	94	100	143	100	35	100	41	100	36	100	114	100	110	100	725	100
Gender																		
Male	62	41	76	81	108	76	23	66	32	78	25	69	96	84	83	75	505	70
Female	90	59	18	19	35	24	12	34	9	22	11	31	18	16	27	25	220	30
Total	152	100	94	100	143	100	35	100	41	100	36	100	114	100	110	100	725	100
Race																		
White	55	36	77	82	95	66	20	57	37	90	30	83	66	58	53	48	433	60
Black	95	63	17	18	44	31	14	40	3	7	5	14	42	37	52	47	272	38
Other/Unknown	2	1	0	0	4	3	1	1	1	2	1	3	6	5	5	5	20	3
Total	152	100	94	100	143	100	35	98	41	100	36	100	114	100	110	100	725	100
Risk Behavior																		
MSM	34	22	56	60	76	53	15	43	24	59	14	39	49	43	46	42	314	43
IDU	57	38	8	9	11	8	12	34	1	2	3	8	22	19	25	23	139	19
MSM/IDU	4	3	2	2	2	1	0	0	1	2	2	6	3	3	4	4	18	2
Coag. Disorder	2	1	1	1	0	0	0	0	0	0	1	3	1	1	0	0	5	1
Hetero. Contact	31	20	18	19	18	13	3	9	9	22	9	25	18	16	15	14	121	17
Transfusion	0	0	0	0	2	1	0	0	1	2	0	0	2	2	1	1	6	1
NIR*/Other	23	15	9	10	33	23	5	14	5	12	7	19	18	16	18	16	118	16
Pediatric	1	1	0	0	1	1	0	0	0	0	0	0	1	1	1	1	4	1
TOTAL CASES	**152**	**100**	**94**	**100**	**143**	**100**	**35**	**100**	**41**	**100**	**36**	**100**	**114**	**100**	**110**	**100**	**725**	**100**
% of Report	**21**		**13**		**20**		**5**		**6**		**5**		**16**		**15**		**100**	
% of Population	**12**		**14**		**16**		**8**		**9**		**9**		**20**		**12**		**100**	

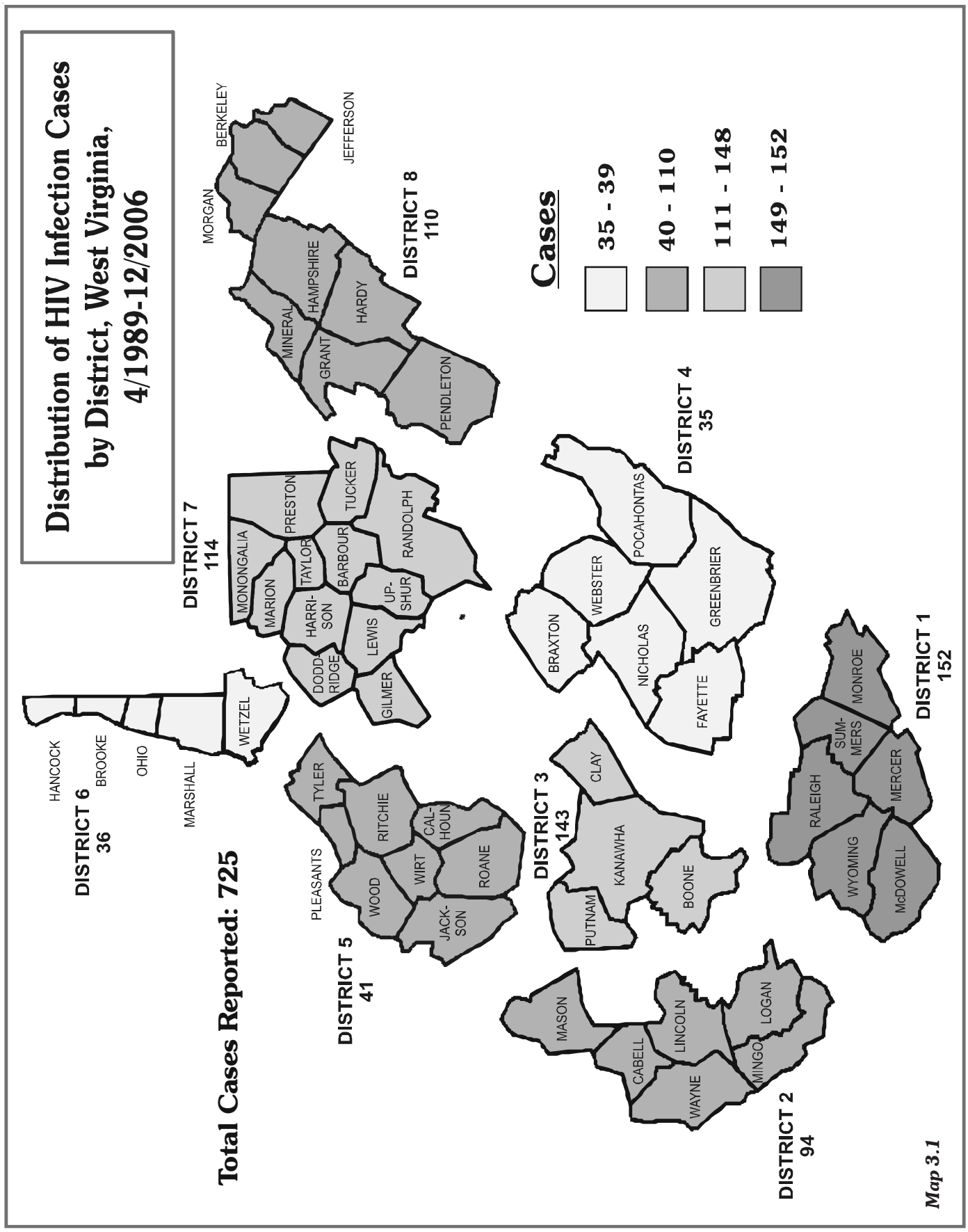
Table 3.17

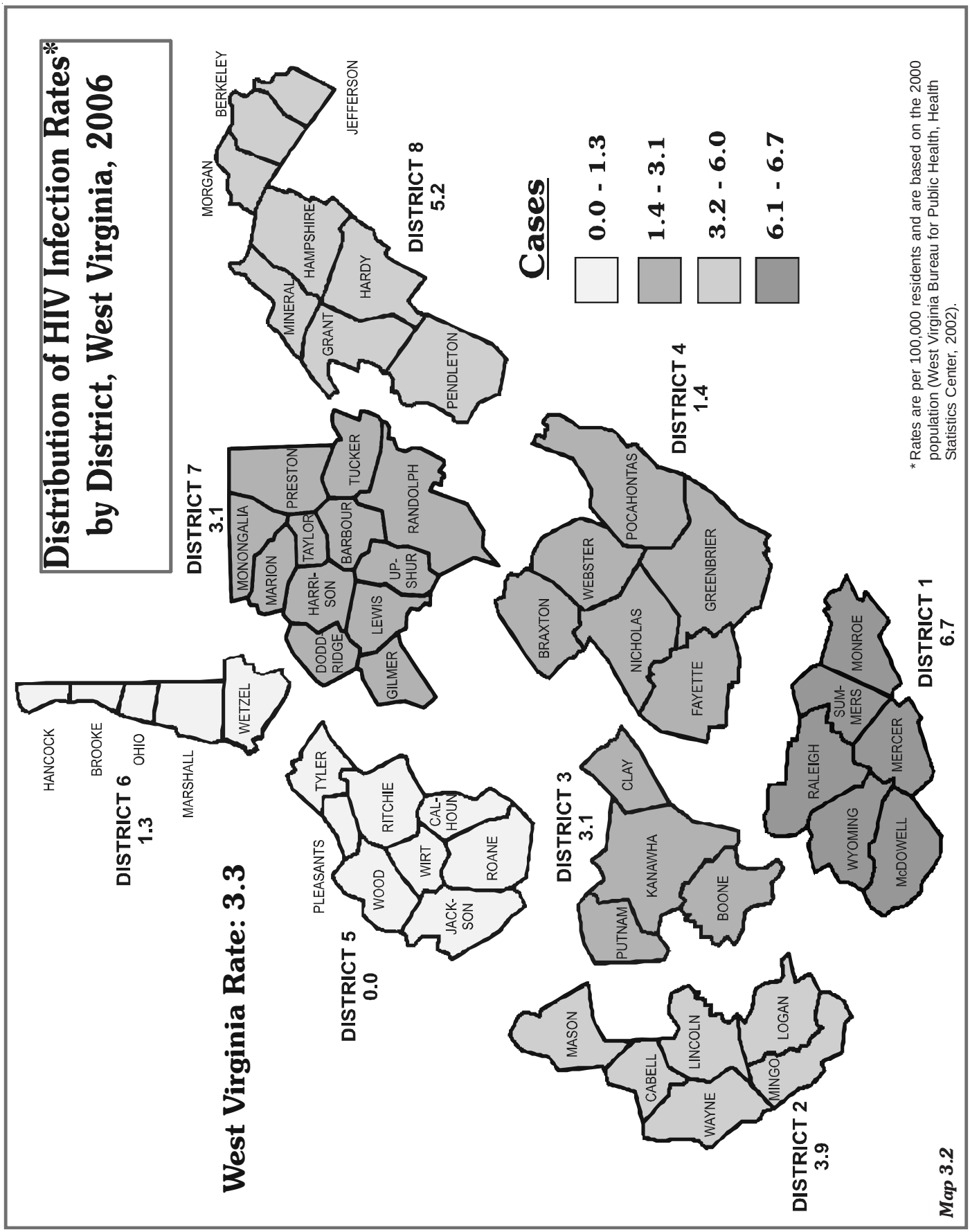
Overall, the highest number of HIV cases were reported in district 1 (152 cases), followed by district 3 (143 cases) and district 7 (114 cases).

The highest number of HIV cases in males were reported in district 3 (108 cases), followed by district 7 (96 cases) and district 8 (83 cases). In females, the highest number of HIV cases were reported in district 1 (90 cases), followed by district 3 (35 cases) and district 8 (27 cases).

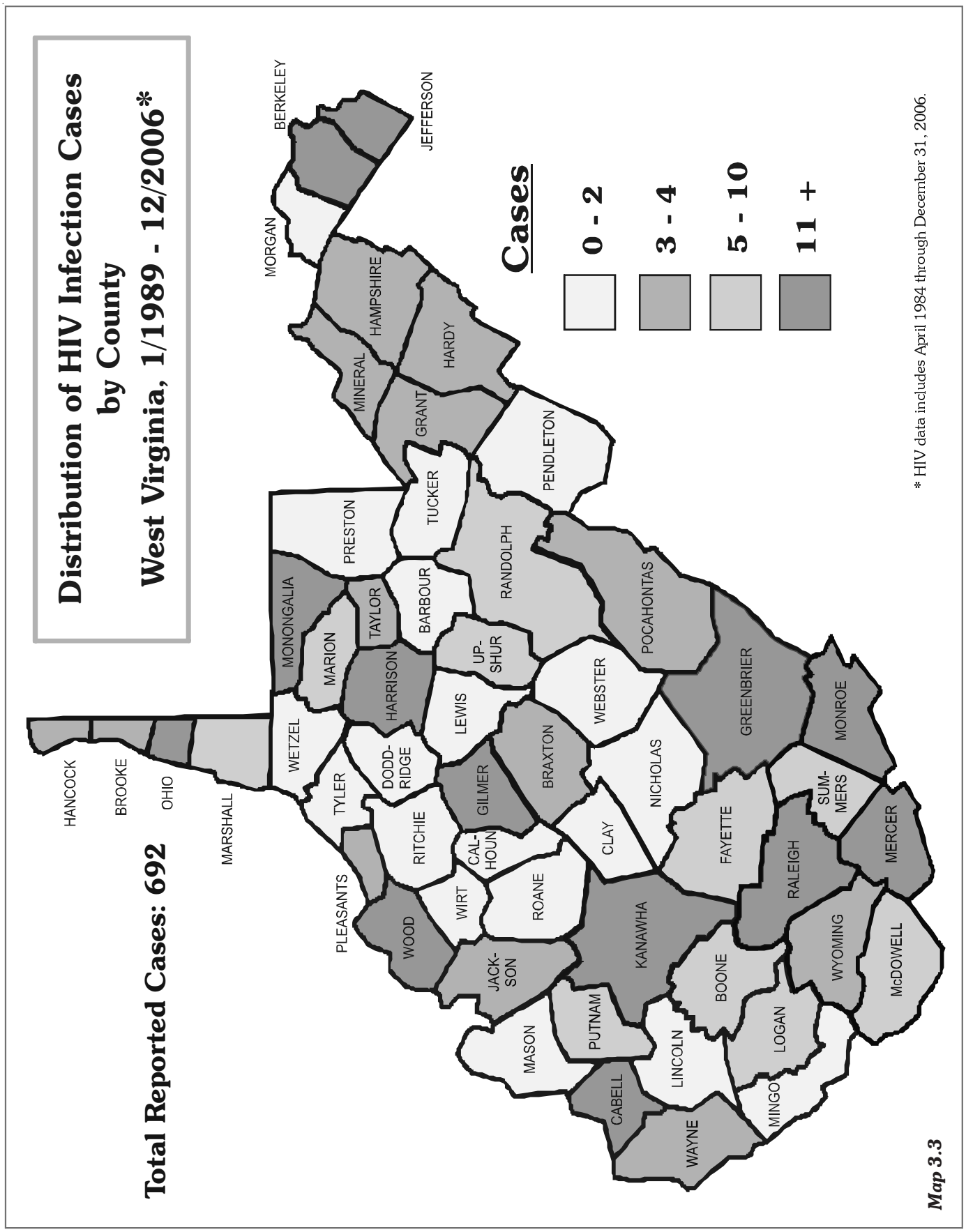
The highest number of HIV cases in whites were reported in district 3 (95 cases), followed by district 2 (77 cases) and district 7 (66 cases). In blacks, the highest number of HIV cases were reported in district 1 (95 cases), followed by district 8 (52 cases) and districts 3 (44 cases).

When comparing risk behaviors, the MSM risk behavior accounted for the highest number of HIV infections (314 cases or 43%), followed by the IDU risk behavior (139 cases or 19%) and Heterosexual contact risk behavior (121 or 17%).


Distribution of HIV Infection Cases by District, West Virginia, 4/1989-12/2006
Total Cases Reported: 725
DISTRICT 6 36
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
DISTRICT 7 114
MONONGALIA
PRESTON
TUCKER
MARION
TAYLOR
BARBOUR
RANDOLPH
HARRI-SON
UP-SHUR
DODD-RIDGE
LEWIS
GILMER
DISTRICT 8 110
MORGAN
BERKELEY
JEFFERSON
MINERAL
HAMPSHIRE
HARDY
GRANT
PENDLETON
DISTRICT 4 35
BRAXTON
WEBSTER
POCAHONTAS
NICHOLAS
GREENBRIER
FAYETTE
DISTRICT 5 41
PLEASANTS
TYLER
RITCHIE
CAL-HOUN
WOOD
WIRT
ROANE
JACK-SON
DISTRICT 3 143
CLAY
KANAWHA
PUTNAM
BOONE
DISTRICT 2 94
MASON
CABELL
LINCOLN
LOGAN
WAYNE
MINGO
DISTRICT 1 152
MONROE
SUM-MERS
RALEIGH
MERCER
WYOMING
McDOWELL
Cases
35 - 39
40 - 110
111 - 148
149 - 152
Map 3.1


Distribution of HIV Infection Rates*
by District, West Virginia, 2006
West Virginia Rate: 3.3
DISTRICT 6
1.3
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
DISTRICT 7
3.1
MONONGALIA
MARION
PRESTON
TAYLOR
HARRI-SON
BARBOUR
TUCKER
DODD-RIDGE
LEWIS
UP-SHUR
RANDOLPH
GILMER
DISTRICT 8
5.2
MORGAN
BERKELEY
JEFFERSON
MINERAL
HAMPSHIRE
GRANT
HARDY
PENDLETON
DISTRICT 5
0.0
PLEASANTS
TYLER
RITCHIE
WOOD
WIRT
CAL-HOUN
ROANE
JACK-SON
DISTRICT 3
3.1
CLAY
KANAWHA
PUTNAM
BOONE
DISTRICT 4
1.4
BRAXTON
WEBSTER
POCAHONTAS
NICHOLAS
GREENBRIER
FAYETTE
DISTRICT 1
6.7
MONROE
SUM-MERS
RALEIGH
MERCER
WYOMING
McDOWELL
DISTRICT 2
3.9
MASON
CABELL
LINCOLN
LOGAN
WAYNE
MINGO
Cases
0.0 - 1.3
1.4 - 3.1
3.2 - 6.0
6.1 - 6.7
* Rates are per 100,000 residents and are based on the 2000 population (West Virginia Bureau for Public Health, Health Statistics Center, 2002).

Map 3.2


Distribution of HIV Infection Cases
by County
West Virginia, 1/1989 - 12/2006*
Total Reported Cases: 692
Cases
0 - 2
3 - 4
5 - 10
11 +
* HIV data includes April 1984 through December 31, 2006.
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
MONONGALIA
MARION
TYLER
PLEASANTS
WOOD
PRESTON
TAYLOR
HARRISON
DODD-RIDGE
RITCHIE
WIRT
JACK-SON
MASON
PUTNAM
CABELL
WAYNE
TUCKER
BARBOUR
LEWIS
GILMER
CAL-HOUN
ROANE
KANAWHA
LINCOLN
MINGO
LOGAN
BOONE
UP-SHUR
RANDOLPH
BRAXTON
CLAY
WEBSTER
NICHOLAS
FAYETTE
RALEIGH
WYOMING
McDOWELL
MERCER
SUM-MERS
MONROE
GREENBRIER
POCAHONTAS
PENDLETON
GRANT
MINERAL
HARDY
HAMPSHIRE
MORGAN
BERKELEY
JEFFERSON

Map 3.3

Indicators of risk for HIV/AIDS Epidemic

Indicators of risk for HIV/AIDS Epidemic in West Virginia

This section of the epidemiologic profile describes the populations who are infected/affected the most by the HIV/AIDS epidemic in West Virginia.

The people who are most likely to become infected with HIV/AIDS are those who live a high-risk lifestyle in the areas where the HIV/AIDS epidemic is prominent. Risk for HIV infection among various groups defined by exposure or risk categories is difficult to obtain for several reasons. The first reason being that the risk categories listed in HARS for HIV/AIDS are different than those of STD behavior. Secondily, the surveillance system data in HARS is based on a hierarchical assignment of the risk behavior (Example: If a case has two risk behaviors, IDU and heterosexual contact, the surveillance system will select the IDU risk behavior as the primary risk and will not recognize the heterosexual contact as a risk). Third, to analyze the rates there are no identified numbers for at-risk or high-risk populations available for some groups. To calculate rates, one must have estimates of the number of people infected as well as estimates of the uninfected population. Since we do not have reliable population estimates for some of the groups defined by risk behaviors, the best information is obtained from the surveillance data.

The three high-risk populations that will be the focus of discussion in this section are MSM, IDU and Heterosexual contacts. In order to understand the populations at risk for exposure to HIV infection, it is important to understand what we know about HIV/AIDS cases from surveillance data, since great amounts of effort are put into determining key risk behaviors associated with each case report.

The level of HIV infection varies in the population infected/affected by HIV disease. There are the direct and indirect measures of risk behaviors in the populations most at risk for HIV infection. Direct measures of risk will show information/data about risk behavior that is directly or indirectly related to HIV modes of transmission. Indirect measures do not identify the HIV risk behaviors, but they do give indicators of possible HIV risk behavior. For example, an increase in the numbers of STD cases does not directly show that HIV exposure is on the rise. However, it could indicate that an increase in the number of people who are having unprotected sex is increasing and/or condom use is declining and as a result there is an increase of HIV exposure. In this section, due to lack of having complete data/information for indirect measures, the direct measures for the three high-risk populations will be discussed.

Men who have Sex with Men (MSM)

From the beginning of the HIV epidemic in 1984 through 1990, MSM cases accounted for almost 65% of all morbidity. By the end of 2000, the epidemic in West Virginia had spread to other risk groups and MSM accounted for a smaller proportion (50%) overall. However, MSM have continued to account for the largest proportion of all reported cases, although HIV infection has spread to other risk behavior groups. White MSM accounted for a larger portion of male reports in the early years of the epidemic, and continued to do so through 2006.

Injecting IV Drug Users (IDU)

Injecting Drug Users (IDU) accounted for about 8% of reported HIV/AIDS cases among males, and 20% of the reported cases for females in 2006. Since 2002, though small in number, there has been a decline in reported IDU risk behavior among females with the exception of 2003 when compare to previous year (increased from 10 cases in 2002 to 16 cases in 2003). In males, HIV/AIDS cases due to IDU risk behavior remained fairly stable over the last five years, except for 2003 which had an increase from 10 to 19 when compared to 2002.

Heterosexual Contact

HIV/AIDS reported cases among persons with heterosexual contact for the most recent five years of data reported by gender are displayed in Table 4.1.

Heterosexual risk-taking behavior was reported to be the primary risk in females, accounting for 49% of the new HIV infection cases among females in 2006. It was the principal risk for female cases, especially younger female cases, and accounted for more than 46% of all female reported cases fot he most recent five years. An increase in HIV/AIDS cases in females due to heterosexual contact risk behavior was reported for 2006 when compare to previous year (11 cases in 2005 to 20 cases in 2006).

West Virginia HIV/AIDS Cases by Risk Behavior and Gender
2002 - 2006

Risk Behavior	2002				2003				2004				2005				2006				Total	
	M~		F^		M		F		M		F		M		F		M		F		M	F
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	#
MSM	63	71	0	0	44	45	0	0	50	56	0	0	66	75	0	0	57	72	0	0	280	0
IDU	10	11	10	29	19	19	16	33	12	13	12	29	6	7	6	30	6	8	8	20	53	52
MSM/IDU	3	3	0	0	2	2	0	0	2	2	0	0	6	7	0	0	1	1	0	0	14	0
Coagualtion Disorder	1	1	0	0	0	0	0	0	2	2	0	0	1	1	0	0	0	0	0	0	4	0
Heterosexual Contact	1	1	14	41	12	12	22	46	4	4	17	40	1	1	11	55	1	1	20	49	19	84
Transfusion/ Transplant	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	1	1	0	0	4	0
Risk Not Specified	11	12	10	29	20	20	10	21	15	17	13	31	8	9	3	15	13	16	12	29	67	48
Mother with HIV Risk	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	1	2	2	1
TOTAL	**89**	**100**	**34**	**100**	**98**	**100**	**48**	**100**	**89**	**100**	**42**	**100**	**88**	**100**	**20**	**100**	**79**	**100**	**41**	**100**	**443**	**185**

~ Male ^ Female

Table 4.1

West Virginia AIDS and HIV Infection Cases by Age Group, Gender, Race, and Risk Behavior Cumulative through 2006*

The following items are noted from a review of this table:

- The highest number of HIV and AIDS cases were reported in the 30-39 age group (865 cases or 40%), followed by the 40-49 age group (540 or 25%) and 20-29 age group (491 or 23%).
  - ➢ 42% of AIDS cases and 35% of HIV infection cases were reported in the 30-39 age group.
  - ➢ 29% of AIDS cases and 17% of HIV infection cases were reported in the 40-49 age group.
- Males represent 83% of AIDS cases and 70% of HIV infection cases; Females represent 17% of AIDS cases and 30% of HIV infection cases.
- Blacks accounted for 20% of AIDS cases and 38% of HIV infections cases, while comprising only 3% of the state's population.
- When comparing risk behavior for AIDS cases and HIV infection cases:
  - ➢ The MSM risk behavior accounted for the highest number of HIV/AIDS cases (1101 cases or 51%), followed by IDU risk behavior (359 or 17%) and heterosexual contact (287 or 13%).
  - ➢ The MSM risk behavior accounted for 55% of adult AIDS cases, and 44% of adult HIV infection cases.
  - ➢ The heterosexual contact risk behavior accounted for 17% of adult HIV infection cases, and 11% of adult AIDS cases.

West Virginia AIDS and HIV Infection Cases by Age Group, Gender, Race and Risk Behavior Cumulative through December 31, 2006*

Characteristic	AIDS		HIV		Total	
Age Group~	#	%	#	%	#	%
Under 5	9	1	4	1	13	1
5-12	3	<1	0	0	3	<1
13-19	16	1	42	6	58	3
20-29	234	16	257	35	491	23
30-39	612	42	253	35	865	40
40-49	417	29	123	17	540	25
50 and Over	164	11	46	6	210	10
Total	**1455**	**100**	**725**	**100**	**2180**	**100**
Gender						
Male	1214	83	505	70	1719	79
Female	241	17	220	30	461	21
Total	**1455**	**100**	**725**	**100**	**2180**	**100**
Race						
White	1145	79	433	60	1578	72
Black	290	20	272	38	562	26
Other/Unknown	20	1	20	3	40	2
Total	**1455**	**100**	**725**	**100**	**2180**	**100**
Risk Behavior						
Adult						
MSM	787	55	314	44	1101	51
IDU	220	15	139	19	359	17
MSM/IDU	77	5	18	2	95	4
Coagulation Disorder	41	3	5	1	46	2
Heterosexual Contact with Known Risk	130	9	86	12	216	10
Heterosexual Contact with Unknown Risk	36	2	35	5	71	3
Transfusion/Transplant	36	2	6	1	42	2
No Identified Risk/Other**	115	8	118	16	233	11
Subtotal	**1442**	**100**	**721**	**100**	**2163**	**100**
Pediatric						
Coagulation Disorder	1	8	0	0	1	6
Mother HIV Positive	12	92	4	100	16	94
Subtotal	**13**	**100**	**4**	**100**	**17**	**100**
Total Adults & Pediatrics	**1455**	**100**	**725**	**100**	**2180**	**100**

Table 4.2

MSM = **M**en having **S**ex With **M**en; **IDU** = **I**njecting **D**rug **U**ser

* AIDS data includes April 1984 through December 31, 2006, and HIV data includes January 1989 through December 31, 2006.

^ Other risk behavior includes cases reported with no risk identified that have been closed to follow-up.

~ Age group intervals depicted in the table above may not be uniform due to:

a) Small number of cases are among under 13 age groups.

b) Twelve years of age and under are considered pediatric cases.

c) 13-19 being the adolescent age group.

West Virginia People Livinig with HIV/AIDS by Age Group, Gender, Race, and Risk Behavior, through 2006*

This table displays cumulative number of **P**eople **L**iving **W**ith **H**IV/**A**IDS (**PLWHA**), the following items are noted:

- The 20-29 age group among people living with AIDS and HIV reported 14% of the AIDS cases; 36% of the HIV infection cases and 25% of PLWHA.
- People living with AIDS were older than those living with HIV infection as shown in the 30-39 and 40-49 age groups:
  - ➢ In the 30-39 age group, 40% of cases were people living with AIDS, while 34% were cases living with HIV infection and 37% are PLWHA.
  - ➢ The 40-49 age group, 33% of cases were people living with AIDS, while 17% were cases living with HIV infection and 25% are PLWHA.
- When comparing females and males, females accounted for 20% of PLWA and 31% of PLWH infection, compared to 80% of PLWA and 69% of PLWH infection in males.
- Blacks, while comprising only 3% of the state's population, accounted for 23% of PLWA and 38% of PLWH cases.
- When comparing risk behavior for people living with AIDS and HIV infection cases:
  - ➢ The MSM risk behavior accounted for 55% of adults living with AIDS, while 44% of adults living with HIV infection cases and 49% of PLWHA.
  - ➢ The heterosexual contact risk behavior accounted for 18% of adults living with HIV infection, while only 12% of adults living with AIDS.

West Virginia People Living with AIDS/HIV Cases by Age Group, Gender, Race and Risk Behavior Cumulative through December 31, 2006*

Characteristic	AIDS		HIV		Total	
Age Group~	#	%	#	%	#	%
Under 5	6	1	4	1	10	1
5-12	1	<1	0	0	1	<1
13-19	11	2	42	6	53	4
20-29	99	14	244	36	343	25
30-39	282	40	233	34	515	37
40-49	235	33	115	17	350	25
50 and Over	73	10	42	6	115	8
Total	**707**	**100**	**680**	**100**	**1387**	**100**
Gender						
Male	569	80	467	69	1036	75
Female	138	20	213	31	351	25
Total	**707**	**100**	**680**	**100**	**1387**	**100**
Race						
White	533	75	403	59	936	67
Black	161	23	258	38	419	30
Oher/Unknown	13	2	19	3	32	2
Total	**707**	**100**	**680**	**100**	**1387**	**100**
Risk Behavior						
Adult						
MSM	382	55	298	44	680	49
IDU	108	15	127	19	235	17
MSM/IDU	32	5	13	2	45	3
Coagulation Disorder	9	1	3	0	12	1
Heterosexual Contact with Known Risk	62	9	86	13	148	11
Heterosexual Contact with Unknown Risk	35	5	33	5	68	5
Transfusion/Transplant	5	1	6	1	11	1
No Identified Risk/Other**	66	9	110	16	176	13
Subtotal	**699**	**100**	**676**	**100**	**1375**	**100**
Pediatric						
Coagulation Disorder	0	0	0	0	0	0
Mother HIV Positive	8	100	4	100	12	100
Subtotal	**8**	**100**	**4**	**100**	**12**	**100**
Total Adults & Pediatrics	**707**	**100**	**680**	**100**	**1387**	**100**

Table 4.3

MSM = **M**en having **S**ex With **M**en; **IDU** = **I**njecting **D**rug **U**ser

* AIDS data includes April 1984 through December 31, 2006, and HIV data includes January 1989 through December 31, 2006.

^ Other risk behavior includes cases reported with no risk identified that have been closed to follow-up.

~ Age group intervals depicted in the table above may not be uniform due to:

a) Small number of cases are among under 13 age groups.

b) Twelve years of age and under are considered pediatric cases.

c) 13-19 being the adolescent age group.

West Virginia AIDS and HIV Infection Cases and People Living with HIV/AIDS Cases, by Age Group and Gender, 1984 - 2006*

West Virginia AIDS and HIV Infection Cases Comparison by Age Group and Gender, 1984 - 2006*

Age Group	Male						Female						Total	
	AIDS		HIV		Total		AIDS		HIV		Total			
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0-12	6	0	3	1	9	1	6	2	1	0	7	2	**16**	**1**
13-19	11	1	17	3	28	2	5	24	25	11	30	7	**58**	**3**
20-29	187	15	179	35	366	21	47	20	78	35	125	27	**491**	**23**
30-39	501	41	178	35	679	39	111	46	75	34	186	40	**865**	**40**
40-49	367	30	92	18	459	27	50	21	31	14	81	18	**540**	**25**
50+	142	12	36	7	178	10	22	9	10	5	32	7	**210**	**10**
Total Cases	**1214**	**100**	**505**	**100**	**1719**	**100**	**241**	**122**	**220**	**100**	**461**	**100**	**2180**	**100**
% AIDS/HIV	**83**		**70**				**17**		**30**				**100**	
% Male/Female	**79**						**21**						**100**	

Table 4.4

West Virginia People Living with HIV/AIDS(PLWHA) by Age Group and Gender, 1984 - 2006*

Age Group	Male						Female						Total (PLWHA)	
	AIDS		HIV		Total		AIDS		HIV		Total			
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0-12	5	1	3	1	8	1	2	1	1	0	3	1	**11**	**1**
13-19	7	1	17	4	24	2	4	3	25	12	29	8	**53**	**4**
20-29	74	13	166	36	240	23	25	18	78	37	103	29	**343**	**25**
30-39	222	39	164	35	386	37	60	43	69	32	129	37	**515**	**37**
40-49	198	35	84	18	282	27	37	27	31	15	68	19	**350**	**25**
50+	63	11	33	7	96	9	10	7	9	4	19	5	**115**	**8**
Total Cases	**569**	**100**	**467**	**100**	**1036**	**100**	**138**	**100**	**213**	**100**	**351**	**100**	**1387**	**100**
% AIDS/HIV	**80**		**69**				**20**		**31**				**100**	
% Male/Female	**75**						**25**						**100**	

Table 4.5

Males accounted for 83% of reported AIDS cases and 70% of HIV infection cases, compared to 17% of reported AIDS cases and 30% of HIV infections in females. (Table 4.4)

The highest number of HIV and AIDS cases were reported for both genders in the 30-39 age group (865 cases or 40%), followed by the 40-49 age group (540 cases or 25%) and 20 -29 age group (491 cases or 23%)

Table 4.5 dispalys males and females living with HIV/AIDS in West Virginia. Among female the 30-39 age group had the highest number of people living with HIV/AIDS (129 cases or 37%), followed by the 20-29 age group (103 cases or 29%) and the 40-49 age group (68 cases or 19%).

In the 30-39 age group, 39% percent of People Living with AIDS (PLWA) and 35% of People Living With HIV (PLWH) were reported to be male, compared to 43% of PLWA and 32% of PLWH among females.

* AIDS data includes April 1984 through December 2006, and HIV data includes January 1989 through December 2006.

West Virginia AIDS and HIV Infection Cases and People Living with HIV/AIDS Cases, by Age Group and Race, 1984 - 2006*

Blacks were disproportionately affected by AIDS from 1984 through 2006. Blacks comprise 3% of West Virginia's population, but were 20% of AIDS and 38% of HIV infection cases reported (Table 4.6).

In the 30-39 age group, 40% percent of People Living with AIDS (PLWA) and 35% of People Living With HIV (PLWH) were reported to be whites, compared to 38% of PLWA and 34% of PLWH among blacks (Table 4.7).

West Virginia AIDS and HIV Infection Cases Comparison by Age Group and Race, 1984 - 2006*

Age Group	White						Black						Other						Total	
	AIDS		HIV		Total		AIDS		HIV		Total		AIDS		HIV		Total			
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0-12	6	1	3	1	9	1	5	2	1	0	6	1	1	5	0	0	1	2	**11**	**1**
13-19	11	1	12	3	23	1	5	2	28	10	33	6	0	0	2	10	2	5	**31**	**1**
20-29	192	17	166	39	358	23	38	13	81	30	119	21	4	20	10	48	14	34	**393**	**18**
30-39	488	43	151	35	639	41	114	39	96	35	210	37	10	50	6	29	16	39	**692**	**32**
40-49	320	28	72	17	392	25	94	32	49	18	143	25	4	20	2	10	6	15	**423**	**19**
50+	128	11	27	6	155	10	35	12	18	7	53	9	1	5	1	5	2	5	**166**	**8**
Total Cases	**1145**	**100**	**431**	**100**	**1576**	**100**	**291**	**100**	**273**	**100**	**564**	**100**	**20**	**100**	**21**	**100**	**41**	**100**	**2181**	**79**
% AIDS/HIV	**79**		**59**				**20**		**38**				**1**		**3**				**100**	
% Race	**72**						**26**						**2**						**100**	

Table 4.6

West Virginia People Living with HIV/AIDS(PLWHA) by Age Group and Race, 1984 - 2006*

Age Group	White						Black						Other						Total (PLWHA)	
	AIDS		HIV		Total		AIDS		HIV		Total		AIDS		HIV		Total			
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
0-12	3	1	3	1	6	1	3	2	1	0	4	1	1	9	0	0	1	3	**11**	**1**
13-19	6	1	12	3	18	2	5	3	28	11	33	8	0	0	2	10	2	6	**53**	**4**
20-29	82	15	154	38	236	25	16	10	80	31	96	23	1	9	10	50	11	35	**343**	**25**
30-39	215	40	139	35	354	38	61	38	89	34	150	36	6	55	5	25	11	35	**515**	**37**
40-49	172	32	67	17	239	26	62	38	46	18	108	26	2	18	2	10	4	13	**351**	**25**
50+	57	11	26	6	83	9	15	9	15	6	30	7	1	9	1	5	2	6	**115**	**8**
Total Cases	**535**	**100**	**401**	**100**	**936**	**100**	**162**	**100**	**259**	**100**	**421**	**100**	**11**	**100**	**20**	**100**	**31**	**100**	**1388**	**100**
% AIDS/HIV	**76**		**59**				**23**		**38**				**2**		**3**				**100**	
% Race	**67**						**30**						**2**						**100**	

Table 4.7

* AIDS data includes April 1984 through December 2006, and HIV data includes January 1989 through December 2006.

West Virginia AIDS and HIV Infection Cases and People Living with HIV/AIDS Cases, by Risk Behavior and Race, 1984 - 2006*

Tables 4.8 and 4.9 display cumulative AIDS and HIV infection cases and people living with HIV/AIDS by Risk Behavior and race through December 31, 2006.

MSM risk behavior accounted for 62% of the reported AIDS cases and 60% of HIV cases among whites. Among blacks, the IDU risk behavior accounted for the highest number of AIDS and HIV cases (192 cases or 34%) followed by heterosexual contact and MSM risk behavior (122 cases or 22% and 120 cases or 21% respectively).

MSM risk behavior also accounted for the highest number of People Living with HIV/AIDS (PLWHA) during the 1984-2006 time period (680 cases or 49%) follwoed by the IDU risk behavior (235 cases or 17%) and heterosexual contact (217 cases or 16%).

West Virginia AIDS and HIV Infection Cases Comparison by Risk Behavior and Race, 1984 - 2006*

Risk Behavior	White						Black						Other						Total	
	AIDS		HIV		Total		AIDS		HIV		Total		AIDS		HIV		Total			
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
MSM	710	62	258	60	968	61	68	23	52	19	120	21	9	45	4	19	13	32	**1101**	**50**
IDU	111	10	49	11	160	10	106	36	86	32	192	34	3	15	4	19	7	17	**359**	**16**
MSM/IDU	65	6	13	3	78	5	12	4	4	1	16	3	0	0	1	5	1	2	**95**	**4**
Coagulation Disorder	39	3	5	1	44	3	1	0	0	0	1	0	1	5	0	0	1	2	**46**	**2**
Heterosexual Contact	107	9	47	11	154	10	56	19	66	24	122	22	4	20	8	38	12	29	**288**	**13**
Transfusion/Transplant	31	3	4	1	35	2	5	2	2	1	7	1	0	0	0	0	0	0	**42**	**2**
Mother with HIV Risk	6	1	3	1	9	1	6	2	1	0	7	1	1	5	0	0	1	2	**17**	**1**
Risk Not Specified	76	7	52	12	128	8	37	13	62	23	99	18	2	10	4	19	6	15	**233**	**11**
Total Cases	**1145**	**100**	**431**	**100**	**1576**	**100**	**291**	**100**	**273**	**100**	**564**	**100**	**20**	**100**	**21**	**100**	**41**	**100**	**2181**	**100**
% HIV/AIDS	**79**		**59**				**20**		**38**				**1**		**3**				**100**	
% Race	**72**						**26**						**2**						**100**	

Table 4.8

West Virginia People Living with HIV/AIDS(PLWHA) by Risk Behavior and Race, 1984 - 2006*

Risk Behavior	White						Black						Other						Total (PLWHA)	
	AIDS		HIV		Total		AIDS		HIV		Total		AIDS		HIV		Total			
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
MSM	344	64	243	61	587	63	34	21	51	20	85	20	4	36	4	20	8	26	**680**	**49**
IDU	51	10	47	12	98	10	55	34	77	30	132	31	2	18	3	15	5	16	**235**	**17**
MSM/IDU	24	4	9	2	33	4	8	5	3	1	11	3	0	0	1	5	1	3	**45**	**3**
Coagulation Disorder	9	2	3	1	12	1	0	0	0	0	0	0	0	0	0	0	0	0	**12**	**1**
Heterosexual Contact	60	11	45	11	105	11	35	22	66	25	101	24	3	27	8	40	11	35	**217**	**16**
Transfusion/Transplant	4	1	4	1	8	1	1	1	2	1	3	1	0	0	0	0	0	0	**11**	**1**
Mother with HIV Risk	3	1	3	1	6	1	4	2	1	0	5	1	1	9	0	0	1	3	**12**	**1**
Risk Not Specified	40	7	47	12	87	9	25	15	59	23	84	20	1	9	4	20	5	16	**176**	**13**
Total Cases	**535**	**100**	**401**	**100**	**936**	**100**	**162**	**100**	**259**	**100**	**421**	**100**	**11**	**100**	**20**	**100**	**31**	**100**	**1388**	**100**
% HIV/AIDS	**76**		**59**				**23**		**38**				**2**		**3**				**100**	
% Race	**67**						**30**						**2**						**100**	

Table 4.9

* AIDS data includes April 1984 through December 2006, and HIV data includes January 1989 through December 2006.

West Virginia AIDS and HIV Infection Cases and People Living with HIV/AIDS Cases, by Year of Report, 1984-2006*

West Virginia AIDS and HIV Infection Cases and PLWHA by Year of Report, AIDS 1984-2006, HIV 1989-2006									
Year of Report	AIDS			HIV (Not AIDS)			Total	PLWHA	
	Total	Alive		Total	Alive			Alive	
		#	%		#	%		#	%
1984-91	**241**	10	4	**75**	61	81	**316**	71	22
1992	**44**	5	11	**40**	38	95	**84**	43	51
1993	**98**	17	17	**32**	30	94	**130**	47	36
1994	**89**	26	29	**36**	31	86	**125**	57	46
1995	**121**	48	40	**42**	36	86	**163**	84	52
1996	**110**	53	48	**34**	32	94	**144**	85	59
1997	**113**	69	61	**46**	40	87	**159**	109	69
1998	**85**	45	53	**46**	43	93	**131**	88	67
1999	**58**	41	71	**27**	27	100	**85**	68	80
2000	**47**	24	51	**44**	41	93	**91**	65	71
2001	**87**	62	71	**37**	37	100	**124**	99	80
2002	**77**	54	70	**46**	45	98	**123**	99	80
2003	**77**	66	86	**69**	69	100	**146**	135	92
2004	**79**	66	84	**52**	51	98	**131**	117	89
2005	**69**	66	96	**39**	39	100	**108**	105	97
2006	**60**	55	92	**60**	60	100	**120**	115	96
Total	**1,455**	**707**	**49**	**725**	**680**	**94**	**2,180**	**1,387**	**64**

Table 4.10

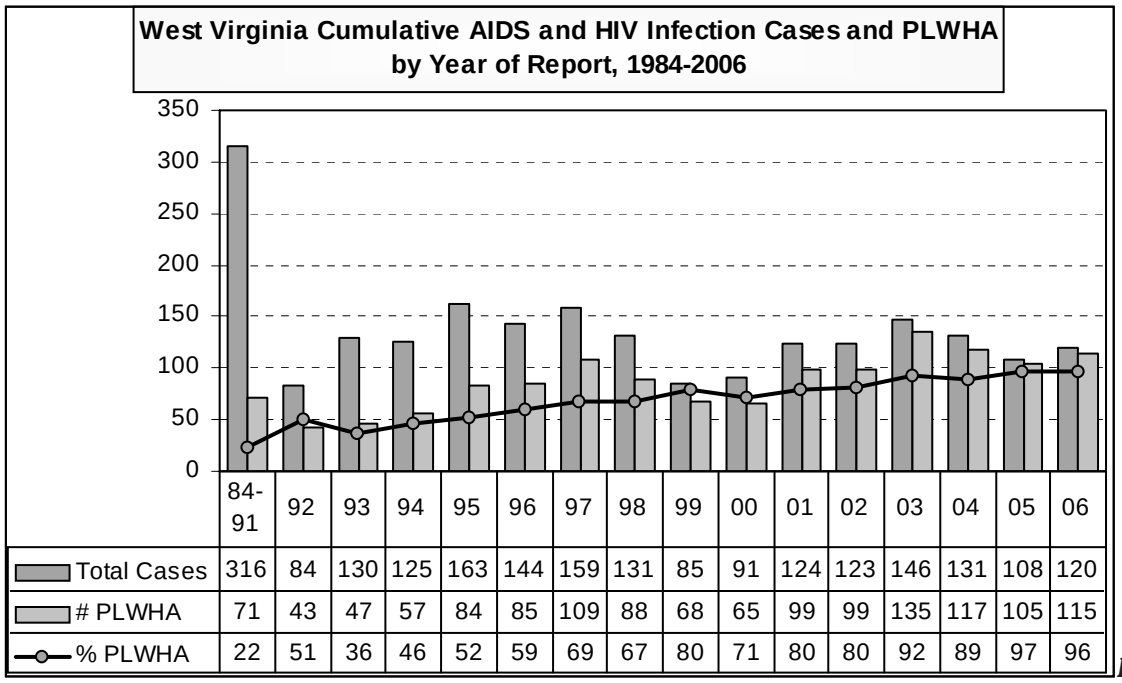


Figure 4.1

Table 4.10 and Figure 4.1 display the percentage of survival for HIV infection and AIDS cases.

While the percentage of survival remained high, the number of People Living with HIV infection (PLWH) declined from 51 cases in 2004 to 39 cases in 2005. The number of people living with AIDS (PLWA) declined to 55 cases in 2006 when comapered to the previous year (66 cases in 2005 to 55 cases in 2006). The survival rates for PLWHA continued to increase during the 1984-2006 time period. This may be due to new drug therapies and continued quality care.

* AIDS data includes April 1984 through December 2006, and HIV data includes January 1989 through December 2006.

West Virginia AIDS and HIV Infection Cases and People Living with HIV/AIDS by Age Group, 1984 - 2006*

West Virginia AIDS and HIV Infection Cases and People Living with HIV/AIDS by Age Group, 1984 - 2006*												
Age Group	Cumulative						Alive					
	AIDS		HIV		Total		AIDS		HIV		PLWHA	
	#	%	#	%	#	%	#	%	#	%	#	%
Under 5	9	1	4	1	13	1	6	1	4	1	10	1
5-12	3	<1	0	0	3	<1	1	<1	0	0	1	<1
13-19	16	1	42	6	58	3	11	2	42	6	53	4
20-29	234	16	257	35	491	23	99	14	244	36	343	25
30-39	612	42	253	35	865	40	282	40	233	34	515	37
40-49	417	29	123	17	540	25	235	33	115	17	350	25
50+	164	11	46	6	210	10	73	10	42	6	115	8
Total	**1455**	**100**	**725**	**100**	**2180**	**100**	**707**	**100**	**680**	**100**	**1387**	**100**

Table 4.11

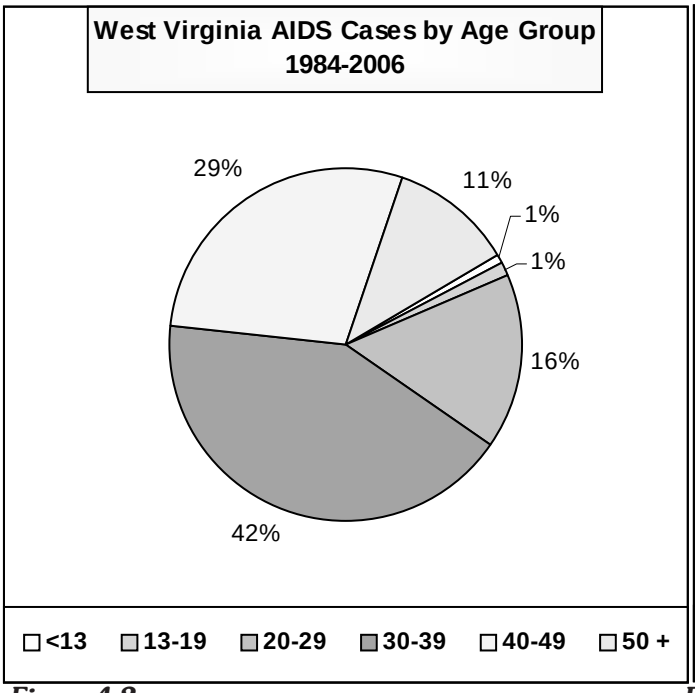


Figure 4.2

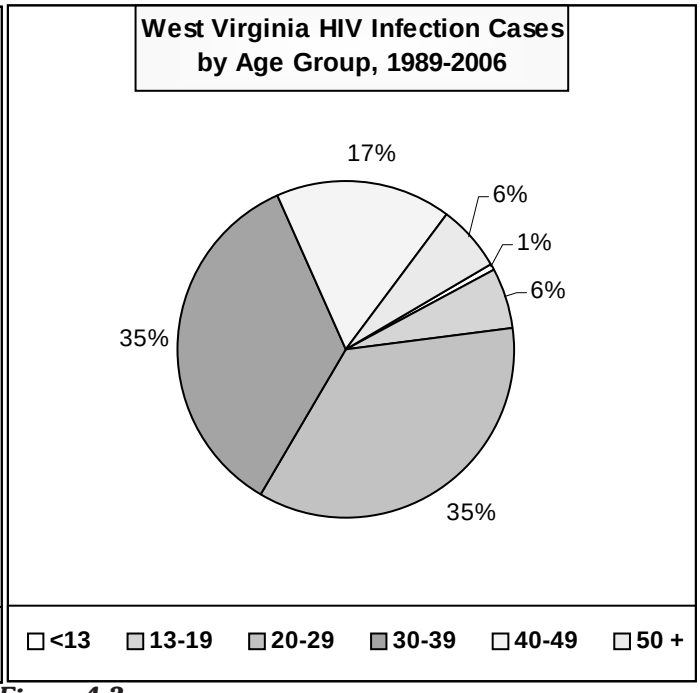


Figure 4.3

- The 30-39 age group reported the highest number of PLWHA (515 cases or 37%), followed by the 40-49 age group (350 cases or 25%) and the 20-29 age group (343 cases or 25%).

- The number of People living with AIDS are older than those living with HIV infection among the 30-39 and 40-49 age groups (40% AIDS cases compared to 34% HIV cases in the 30-39 age group; 33% AIDS cases compared to 17% HIV cases in the 40-49 age group).

* AIDS data includes April 1984 through December 2006, and HIV data includes January 1989 through December 2006.

West Virginia AIDS and HIV Infection Cases and People Living with HIV/AIDS by Gender, 1984 - 2006*

West Virginia AIDS and HIV Infection Cases and People Living with HIV/AIDS by Gender, 1984-2006*												
Gender	Cumulative						Alive					
	AIDS		HIV		Total		AIDS		HIV		PLWHA	
	#	%	#	%	#	%	#	%	#	%	#	%
Male	1214	83	505	70	1719	79	569	80	467	69	1036	75
Female	241	17	220	30	461	21	138	20	213	31	351	25
Total	**1455**	**100**	**725**	**100**	**2180**	**100**	**707**	**100**	**680**	**100**	**1387**	**100**

Table 4.12

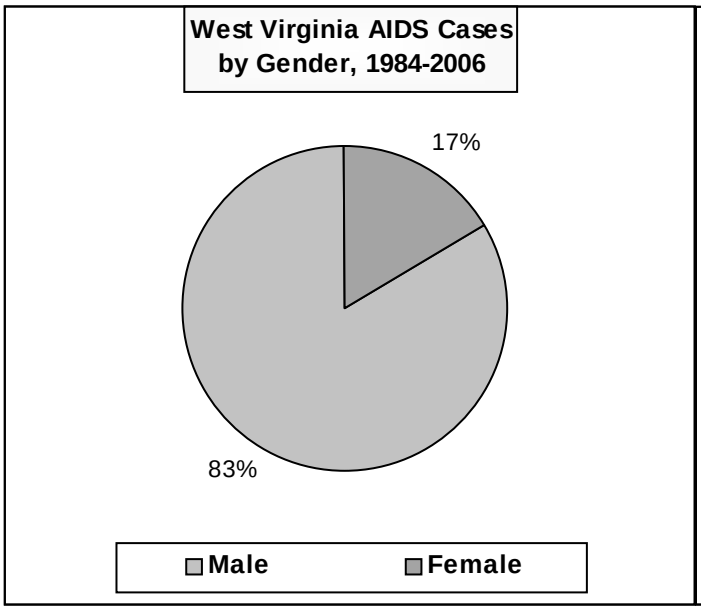


Figure 4.4

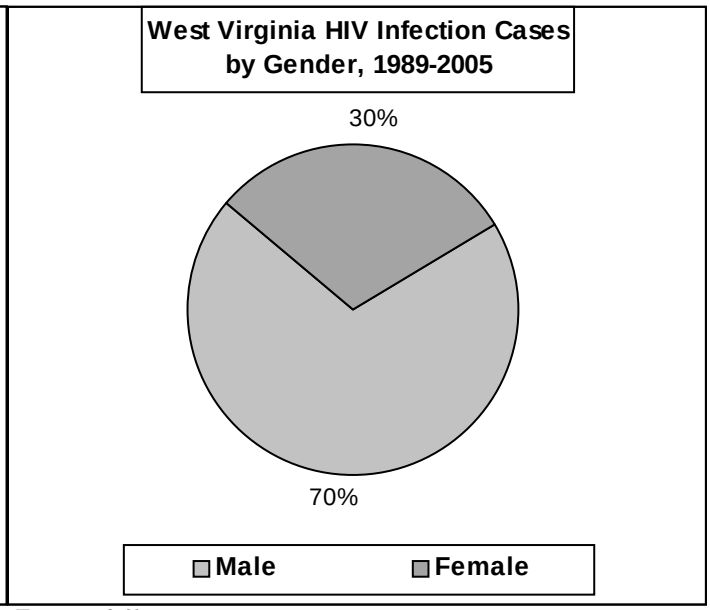


Figure 4.5

➢ When comparing gender for AIDS, HIV infection cases and PLWHA:

- ❖ Males accounted for 83% of AIDS and 70% of HIV infection cases, while females accounted for 17% of AIDS and 30% of HIV infection cases.
- ❖ Among PLWHA, males accounted for 80% of PLWA, 69% of PLWH and 75% of PLWHA, while females accounting for 20% of PLWA, 31% of PLWH and 25% of PLWHA.

* AIDS data includes April 1984 through December 2006, and HIV data includes January 1989 through December 2006.

West Virginia AIDS and HIV Infection Cases and People Living with HIV/AIDS by Race, 1984 - 2005*

West Virginia AIDS and HIV Infection Cases and People Living with HIV/AIDS by Race, 1984-2006*												
Race	Cumulative						Alive					
	AIDS		HIV		Total		AIDS		HIV		PLWHA	
	#	%	#	%	#	%	#	%	#	%	#	%
White	1145	79	433	60	1578	72	533	75	403	59	936	67
Black	290	20	272	38	562	26	161	23	258	38	419	30
Other	20	1	20	3	40	2	13	2	19	3	32	2
Total	**1455**	**100**	**725**	**100**	**2180**	**100**	**707**	**100**	**680**	**100**	**1387**	**100**

Table 4.13

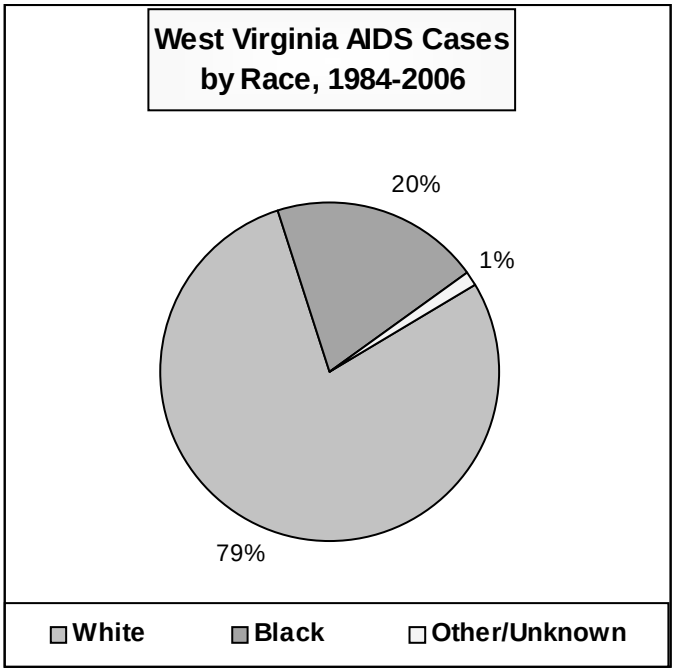


Figure 4.6

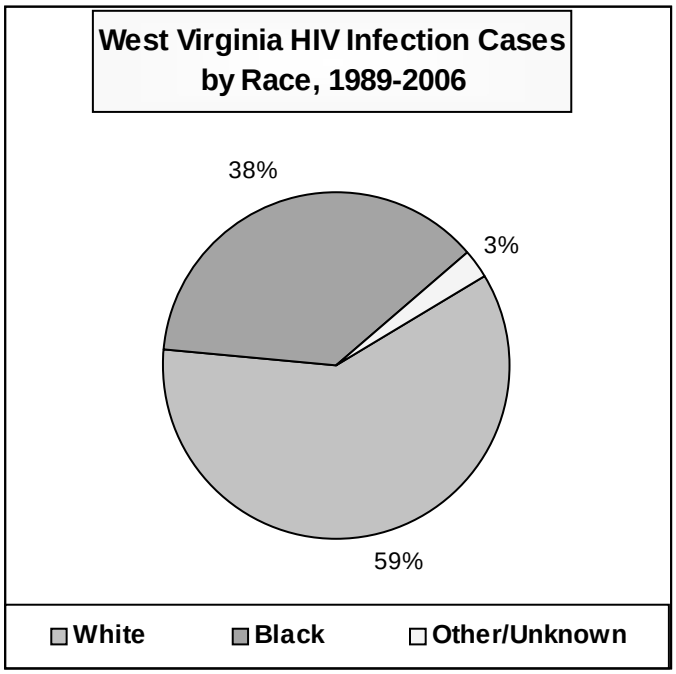


Figure 4.7

➢ The West Virginia population is predominantly white(96% whites, 3% black and 1% others). Blacks in West Virginia are disproportionately affected by HIV and AIDS. During the 1984-2006 time period:

- ❖ Blacks represented 20% of AIDS, 38% of HIV infection and 30% of PLWHA.
- ❖ Whites had a higher precentage among AIDS than HIV infection (1145 cases, 79% for AIDS compared to 433 cases, 60% for HIV). This trend can also be seen among white PLWHA (533 cases, 75% for PLWA compared to 403 cases, 59% for PLWH).

* AIDS data includes April 1984 through December 2006, and HIV data includes January 1989 through December 2006.

West Virginia AIDS and HIV Infection Cases and People Living with HIV/AIDS by Risk Behavior, 1984 - 2006*

Table 4.14

West Virginia AIDS and HIV Infection Cases and People Living with HIV/AIDS by Risk Behavior, 1984-2006*												
Risk Behavior	Cumulative						Alive					
	AIDS		HIV		Total		AIDS		HIV		PLWHA	
	#	%	#	%	#	%	#	%	#	%	#	%
MSM	787	54	314	43	1101	51	382	54	298	44	680	49
IDU	220	15	139	19	359	16	108	15	127	19	235	17
MSM/IDU	77	5	18	2	95	4	32	5	13	2	45	3
Coagulation Disorder	41	3	5	1	46	2	9	1	3	0	12	1
Heterosexual Contact	166	11	121	17	287	13	97	14	119	18	216	16
Transfusion/Transplant	36	2	6	1	42	2	5	1	6	1	11	1
Mother w/HIV	13	1	4	1	17	1	8	1	4	1	12	1
No/Other Risk	115	8	118	16	233	11	66	9	110	16	176	13
Total	**1455**	**100**	**725**	**100**	**2180**	**100**	**707**	**100**	**680**	**100**	**1387**	**100**

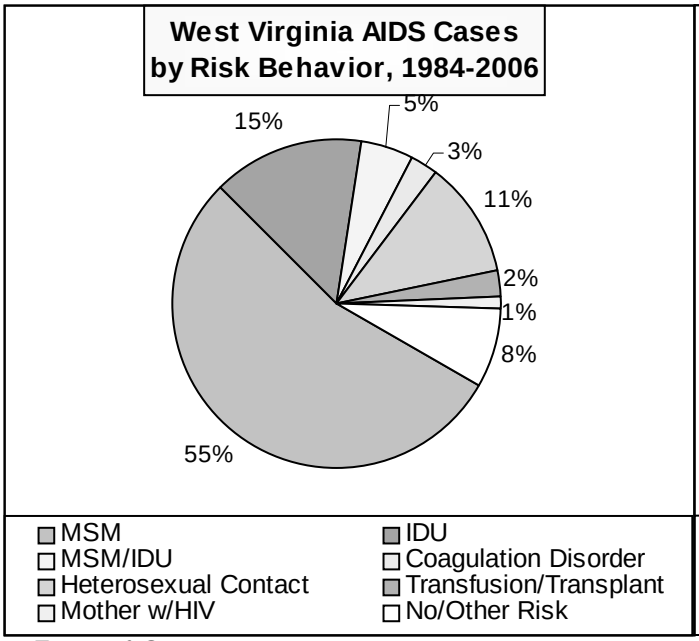


Figure 4.8

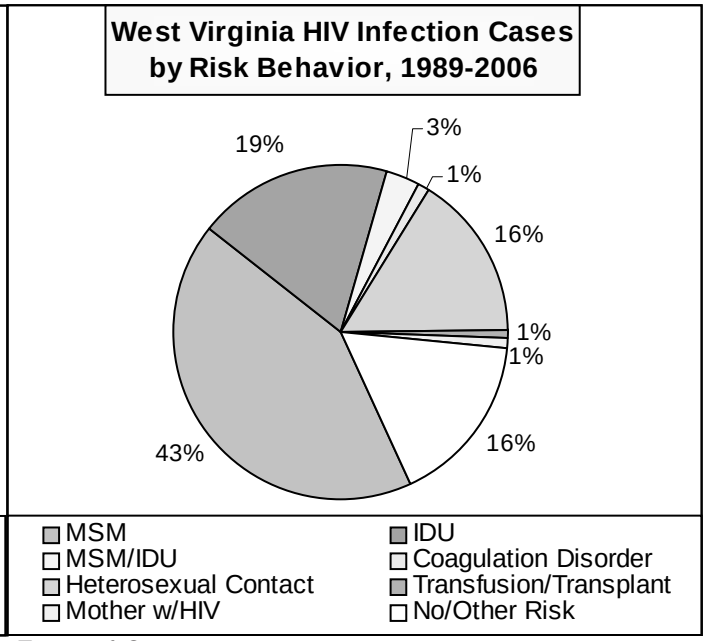


Figure 4.9

Comparing risk behavior for AIDS/HIV cases and PLWHA:

The MSM risk behavior accounted for the highest number of HIV/AIDS and PLWHA cases, followed by the IDU risk behavior and heterosexual contact risk behavior.

MSM risk behavior accounted for 54% of AIDS cases, 43% of HIV infection cases during the above mentioned time periods, and 49% of PLWHA.

The IDU risk behavior accounted for 15% of AIDS cases, 19% of HIV infection cases, and 17% of PLWHA during the above mentioned time periods.

* Data a includes April 1984 through December 2006, and HIV data includes January 1989 through December 2006.

Partner Counseling and Referral Services

Partner Counseling and Referral Services (PCRS) West Virginia, 2005

In order to prevent the spread of HIV/AIDS, the West Virginia AIDS Program developed a protocol to provide guidance for implemention of the patient counseling and referral services for newly identified HIV and AIDS patients and their spousal, sexual, or needle sharing partners.

The guidelines recommend developing a comprehensive program that offers both sex and needle-sharing partners long-term counseling and support for a lifelong medical condition, including client-centered counseling, support for clients who choose to notify their own partners, and help in seeking medical evaluation and treatment.

These guidelines are aimed at helping service providers develop partner notification services that go beyond one-time contact and address controversial issues, such as violation of confidentiality. The Ryan White Reauthorization Act of 1997, requires states to make a concerted effort to institute partner notification programs.

Partner notification is a service conducted in cooperation with the infected individual to confidentially inform his/her sexual and/or needle sharing partners of their exposure to HIV and offer them counseling, testing, medical, and other services.

Partner notification is one of the most effective tools to contact the individual at high risk of exposure. West Virginia HIV/AIDS/STD Program personnel called **D**isease **I**ntervention **S**pecialists (DIS) provide partner notification services, provide counseling and testing, return to patient with test results, and offer assistance to help infected partners to access appropriate services. DIS interview all persons diagnosed with HIV. Part of the interview includes the collection of risk information for patients. Risk information collected includes type of sexual or risk behavior, condom use, substance abuse, and number of sexual partners. Approximately 90 percent of reported HIV cases are ultimately interviewed regarding risk behaviors and partners. This data is referred to as the Partner Counseling and Referral Services (PCRS) data.

An appropriate partner notification service can:

* Help infected individuals, partners and the provider in controlling the spread of HIV disease;
* Educate infected individuals and their partner about the virus and how to reduce risk;
* Inform partners about their HIV status and the need to seek treatment as soon as possible;
* Assist infected individuals in getting medical assistance, counseling and testing through AIDS Prevention Centers (APC) and HIV Care Consortium.

When the infected individual obtain a service, the provider can find a regimen to help reduce the amount of viral load, provide risk reduction education, and help the patient to live and maintain a healthier life.

PCRS are strictly confidential for infected individuals and their partners. The HIV/AIDS/STD

Program staff and DISs make this information available to any other agency. All identified HIV/AIDS positive individuals should participate in PCRS, but realistically may be reluctant to reveal the identity of their partners. The reasons may include retaliation from partners and/or the community or the partners may be residing out of state.

PCRS - Partner Counseling and Referral Services

Overview: West Virginia PCRS started in 1999. The HIV/AIDS/STD Program's field staff (DIS) have the responsibility of conducting patient interviews of persons newly diagnosed with HIV. The interviews are conducted to counsel patients on prevention of subsequent risk, to assist with referrals for treatment and services, and to help with partner notification. Information is collected on clinical status and treatment, patient demographics, and detailed mode of exposure risk. The information is maintained in local STD-MIS surveillance system. Information is limited to interviewed patients. It is estimated that 85-90 percent of HIV infection cases are interviewed.

Population: Persons interviewed by Field Services staff as part of HIV case follow-up or partner notification

Strengths: A high proportion of new cases are interviewed, so it is likely that the data accurately represent the infected population as a whole.

Partner Notification Interview Activities and Case Management Summary Report, 2006	
	No. of Partners & Clusters
Total Partners	**173**
Total Partners Initiated	**109**
Dispositioned	**101**
No. of Cases Assigned	**74**
Refused Inteview/Unable to Locate	53
Cases Inteviewed	74
Interviewed within 3 Days	21
Interviewed within 5 Days	26
Interviewed within 7 Days	26
Interviewed within 14 Days	36
Disposition	
Previous Positive	13
Previous Negative, New Positive	1
Previous Negative, Still Negative	12
Previous Negative, Not Re-tested	1
Not Previously Tested, New Positive	1
Not Previously Tested, New Negative	20
Not Previously Tested, Not Tested Now	0
Sub-Total (Tested)	**48**
Insufficient Information to begin Investigation	15
Unable To Locate	4
Located, Refused Counseling and Testing	3
Out of Jurisdiction	30
Other	1
Sub-Total (Not Tested)	**53**
Total Dispositioned	**101**

Table 5.1

Limitations: Does not represent all newly infected individuals, as not every person infected is tested and reported. The level of risk information available varies from case to case, so there are limitations in comparing risk among the cases.

Table 5.1 displays a summary of PCRS activities conducted in 2006.

HIV Counseling and Testing

West Virginia HIV Testing at AIDS Prevention Centers, 2004-2006

Table 6.1 displays the HIV-testing activity at AIDS Prevention Centers (APCs) in the years 2004, 2005 and 2006. APCs in Districts 1, 2, and 3 accounted for 59% (1,665/2,794) in 2004, 54% (1,311/2,436) in 2005, and 52% (1,335/2,539) in 2006 of the total tests done in the state. Furthermore, Districts 1, 2, and 3 accounted for 87% (27/31) in 2004, 63% (15/24) in 2005, and 67% (20/30) in 2006 of the total positive results in the state.

West Virginia HIV Testing at AIDS Prevention Centers by Public Health District, 2004-2006

District	2004				2005				2006			
	Tested		Positive		Tested		Positive		Tested		Positive	
	#	%	#	%	#	%	#	%	#	%	#	%
1	553	20	5	16	496	20	2	8	494	19	2	7
2	819	29	17	55	577	24	6	25	535	21	10	33
3	293	10	5	16	238	10	7	29	306	12	8	27
4	82	3	0	0	164	7	2	8	235	9	0	0
5	210	8	1	3	207	8	4	17	152	6	0	0
6	72	3	0	0	33	1	0	0	61	2	0	0
7	393	14	1	3	461	19	1	4	522	21	8	27
8	211	8	2	6	168	7	0	0	118	5	1	3
Unknown	161	6	0	0	92	4	2	8	116	5	1	3
Total	2,794	100	31	100	2,436	100	24	100	2,539	100	30	100

Table 6.1

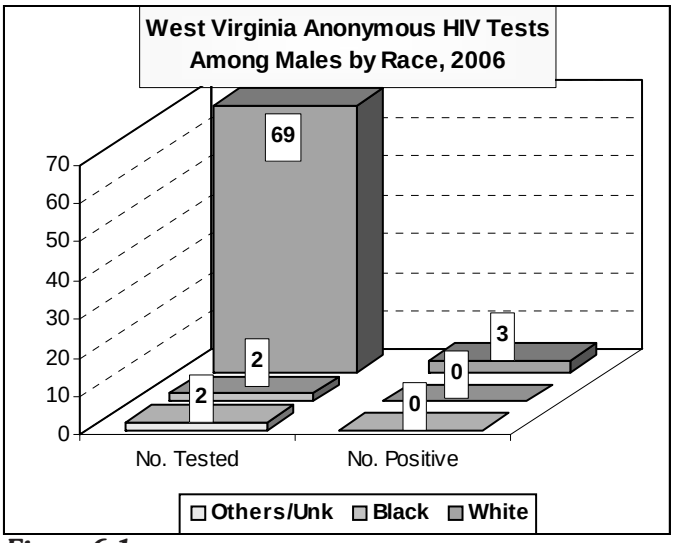


Figure 6.1

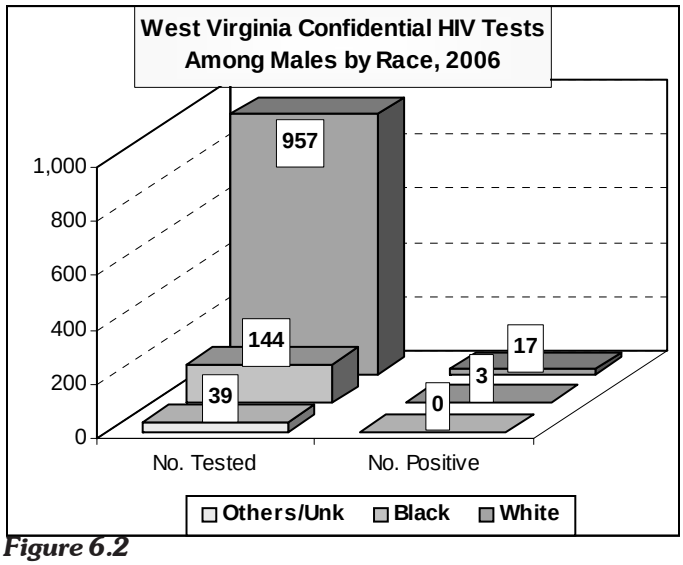


Figure 6.2

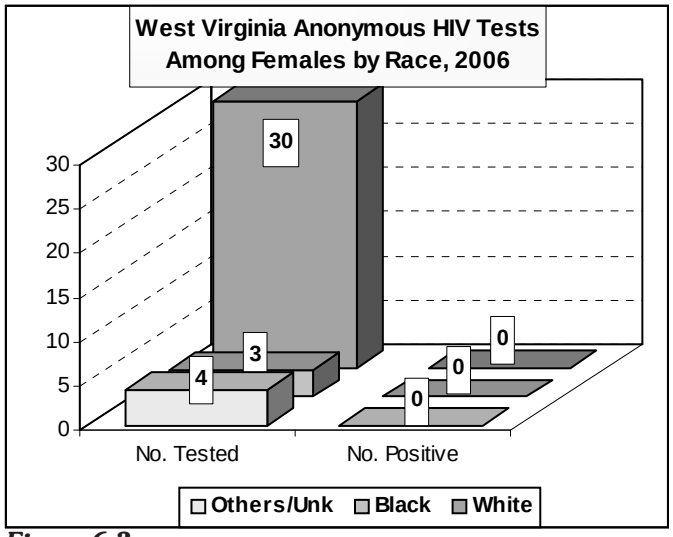


Figure 6.3

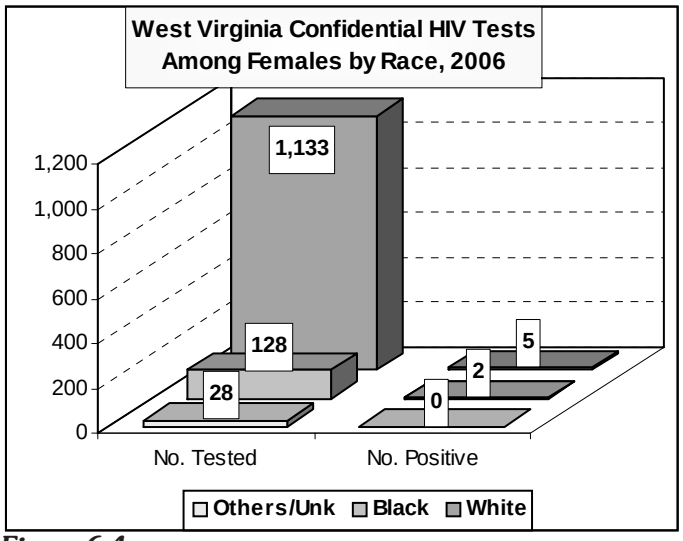


Figure 6.4

West Virginia Anonymous and Confidential HIV Testing at APCs, 2006

West Virginia Anonymous and Confidential HIV Tests at APCs* by Gender, Race, and Risk Behavior, 2006

Characteristic	Anonymous						Confidential						Total		
	Male			Female			Male			Female					
	# Tested	Positive #	Positive %	# Tested	Positive #	Positive %	# Tested	Positive #	Positive %	# Tested	Positive #	Positive %	# Tested	Positive #	Positive %
White															
MSM	24	1	4	-	-	-	170	12	7.1	-	-	-	194	13	6.7
MSM/IDU	0	0	0	-	-	-	5	0	0	-	-	-	5	0	0.0
IDU	1	0	0	0	0	0	54	0	0	58	0	0	113	0	0
Heterosexual	21	1	5	16	0	0	427	3	0.7	656	2	0.3	1,120	6	0.5
Coag. Disorder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfusion	0	0	0	0	0	0	15	0	0	19	2	11	34	2	6
Other/Unknown	23	1	4	14	0	0	286	2	1	400	1	0.3	723	4	1
Subtotal	**69**	**3**	**4.3**	**30**	**0**	**0**	**957**	**17**	**1.8**	**1,133**	**5**	**0.4**	**2,189**	**25**	**1.1**
Black															
MSM	0	0	0	-	-	-	10	1	10	-	-	-	10	1	10
IDU	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
Heterosexual	2	0	0	0	0	0	68	2	2.9	74	1	1	144	3	2
Coag. Disorder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfusion	0	0	0	0	0	0	4	0	0	2	0	0	6	0	0
Other/Unknown	0	0	0	3	0	0	61	0	0.0	52	1	0	116	1	1
Subtotal	**2**	**0**	**0**	**3**	**0**	**0**	**144**	**3**	**2.1**	**128**	**2**	**1.6**	**277**	**5**	**1.8**
Other/Unk.															
MSM	0	0	0	-	-	-	2	0	0	-	-	-	2	0	0
IDU	0	0	0	0	0	0	2	0	0	1	0	0	3	0	0
Heterosexual	1	0	0	2	0	0	16	0	0	10	0	0	29	0	0
Transfusion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other/Unknown	1	0	0	2	0	0	19	0	0	17	0	0	39	0	0
Subtotal	**2**	**0**	**0**	**4**	**0**	**0**	**39**	**0**	**0**	**28**	**0**	**0**	**73**	**0**	**0**
TOTAL	**73**	**3**	**4.1**	**37**	**0**	**0**	**1,140**	**20**	**2**	**1,289**	**7**	**0.5**	**2,539**	**30**	**1.2**
Test Type	**110**			**4 %**			**2,429**			**96 %**			**2,539**	**100**	
Gender	**Male**	**1,213**		**48 %**			**Female**	**1,326**		**52 %**			**2,539**	**100**	

* AIDS Prevention Centers.

Table 6.2

- In 2006, white heterosexual contacts accounted for over 44% (1,120/2,539) of the total HIV testing conducted at APCs in the state, while 20%(6/24) of the positives. MSM risk behavior among whites accounted for about 8%(194/2,539) of the total HIV tests, and over 43%(13/30) of the positives(Table 6.2).

- MSM among blacks accounted for 11%(277/2,539) of the total HIV tests, and about 17%(5/30) of the positives.

- Males accounted for 48%(1,213/2,539) of the total tests but about 77%(23/30) of all of the positives.

- By test type, anonymous testing accounted for 4% (110/2,539) of the total HIV testing, while confidential accounted for 96%(2,429/2,539) of the total HIV testing. Anonymous testing accounted for three postives in 2006.

West Virginia HIV Testing at APCs, District Comparison by Age Group, Gender, Race, and Risk Behavior, 2006

West Virginia HIV Testing at AIDS Prevention Centers(APCs), District Comparison by Age Group, Gender, Race, and Risk Behavior, 2006																				
Characteristic	**Dist 1**		**Dist 2**		**Dist 3**		**Dist 4**		**Dist 5**		**Dist 6**		**Dist 7**		**Dist 8**		**Unk.~**		**Total**	
	T*	**P^**	**T**	**P**	**T**	**P**	**T**	**P**	**T**	**P**	**T**	**P**	**T**	**P**	**T**	**P**	**T**	**P**	**T**	**P**
Age Group																				
5-12	1	0	7	0	0	0	1	0	0	0	0	0	0	0	4	0	1	0	14	0
13-19	74	0	50	0	22	0	29	0	19	0	7	0	59	1	16	0	9	0	285	1
20-29	231	2	263	3	119	6	104	0	71	0	30	0	290	5	46	0	56	1	1210	17
30-39	92	0	110	4	71	2	36	0	35	0	7	0	78	2	20	1	20	0	469	9
40-49	64	0	65	3	59	0	37	0	17	0	10	0	41	0	24	0	19	0	336	3
50+	30	0	33	0	32	0	24	0	10	0	6	0	21	0	8	0	7	0	171	0
Unknown	2	0	7	0	3	0	4	0	0	0	1	0	33	0	0	0	4	0	54	0
Total	**494**	**2**	**535**	**10**	**306**	**8**	**235**	**0**	**152**	**0**	**61**	**0**	**522**	**8**	**118**	**1**	**116**	**1**	**2539**	**30**
Gender																				
Male	190	1	286	10	163	4	101	0	83	0	32	0	251	6	43	1	64	1	1213	23
Female	304	1	249	0	143	4	134	0	69	0	29	0	271	2	75	0	52	0	1326	7
Total	**494**	**2**	**535**	**10**	**306**	**8**	**235**	**0**	**152**	**0**	**61**	**0**	**522**	**8**	**118**	**1**	**116**	**1**	**2539**	**30**
Race																				
White	413	2	443	9	231	4	219	0	141	0	59	0	474	8	109	1	100	1	2189	25
Black	68	0	62	1	73	4	15	0	7	0	1	0	33	0	8	0	10	0	277	5
Other/Unknown	13	0	30	0	2	0	1	0	4	0	1	0	15	0	1	0	6	0	73	0
Total	**494**	**2**	**535**	**10**	**306**	**8**	**235**	**0**	**152**	**0**	**61**	**0**	**522**	**8**	**118**	**1**	**116**	**1**	**2539**	**30**
Risk Behavior																				
MSM	33	1	27	5	40	2	5	0	18	0	5	0	62	4	5	1	11	1	206	14
IDU	37	0	24	0	3	0	10	0	4	0	4	0	17	0	17	0	1	0	117	0
MSM/IDU	1	0	0	0	0	0	0	0	2	0	0	0	1	0	1	0	0	0	5	0
Hetero. Contact	341	1	274	2	82	3	94	0	46	0	35	0	303	3	73	0	45	0	1293	9
Coag. Disorder	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfusion	18	0	2	0	3	0	2	0	5	0	0	0	6	1	4	0	0	0	40	1
Other/Unknown	64	0	208	3	178	3	124	0	77	0	17	0	133	0	18	0	59	0	878	6
Total	**494**	**2**	**535**	**10**	**306**	**8**	**235**	**0**	**152**	**0**	**61**	**0**	**522**	**8**	**118**	**1**	**116**	**1**	**2539**	**30**
% of Report	**19**		**21**		**12**		**9**		**6**		**2**		**21**		**5**		**5**		**100**	
% of Population	**12**		**14**		**16**		**8**		**10**		**9**		**20**		**12**		**-**		**100**	

Table 6.3 * T=No. Tested, ^ P=No. Positive, ~ Unk.= Out of State/Unknown District

- In 2006, District 2 accounted for 21% (535/2,539) of the total HIV testing conducted at APCs in the state, while 33% (10/30) of the positive cases. District 3 accounted for 12%(306/2,539) of the test conducted, while over 27%(8/30) of the positives.

- The 20-29 and 30-39 age groups accounted for 48%(1,210/2,539) and 18%(469/2,539) of the total HIV testing, while 57% and 30% of reported positives respectively.

- Males accounted for 48%(1,213/2,539) of the total tests but over 77%(23/30) of all of the positives.

- Blacks accounted for 11% (277/2,539) of the total HIV testing, while 17%(5/30) of the positive cases.

- Heterosexual contact and Other/Unknown risk behaviors accounted for 86%(2,171/2,539) of the total tests and 50%(15/30) of the positives. MSM accounted for 8%(206/2,539) of the total tested, but accounted for 47%(14/30) of the positives(Table 6.3).

Summary of West Virginia Office of Laboratory Services (OLS) HIV Lab Screening Results, 2002-2006

The West Virginia Office of Laboratory Services(OLS) conducts HIV EIA and confirmatory Western Blot for HIV screening tests at various AIDS counseling and testing clinics, e.g., AIDS Prevention Centers and STD clinics at local health departments(Maps of these sites are at the end of this document), Family Planning Clinics, outreach field testing, etc. Data was gathered for the most recent five year period, 2002 through 2006 and was analyzed. The data from the top three risk behaviors were identified, and though there were a small number of positive reports, the positivity of individuals found in relation to the number tested was assessed to determine the higher level of risk behaviors occurring in each of the CPG districts. Each of WV's eight Community Planning Group (CPG) districts was further assessed to identify HIV risk behavior data by age group, gender, and race. The following summary outlines the results.

STRENGTHS/LIMITATIONS OF THE DATA:

Strengths

1. Data has a numerator and denominator
2. Data is risk and demographic specific
3. In all districts, if no positives were identified, the total number tested was adjusted.

Weaknesses

1. The source of this information is OLS test data only.
2. Other/Unknown category is quite high in some districts and presents problems in identifying interventions.

ALL DISTRICT DATA

In five years, all testing sites throughout the state tested 29,752 with 192 infections identified. The table below is a composite summary of all district testing.

Summary of West Virginia OLS HIV Lab Screening Results, 2002-2006				
District	**# Positive**	**% Positive**	**# Tested**	**% Infected**
District 1	25	13.0	3,379	0.7
District 2	51	26.6	5,508	0.9
District 3	44	22.9	3,739	1.2
District 4	10	5.2	2,572	0.4
District 5	10	5.2	2,544	0.4
District 6	7	3.6	1,176	0.6
District 7	27	14.1	4,518	0.6
District 8	10	5.2	4,695	0.2
District Unknown	8	4.2	1,621	0.5
Total	**192**	**100**	**29,752**	**0.6**

Table 6.4

West Virginia Office of Laboratory Services (OLS)
HIV LAB Screening Results by Age Group, Race, Gender, and Risk Behavior
2002-2006

DISTRICT 1

Heterosexual			
Age Group	# Positive	# Tested	% Positive
< 5	0	0	0
5-12	0	0	0
13-19	3	443	33
20-29	2	1228	22
30-39	1	361	11
40-49	2	249	22
50 +	1	113	11
Unknown	0	9	0
Total	**9**	**2403**	**100**

IDU			
Age Group	# Positive	# Tested	% Positive
13-19	0	14	0
20-29	1	97	25
30-39	1	47	25
40-49	1	31	25
50 +	1	6	25
Unknown	0	1	0
Total	**4**	**196**	**100**

MSM			
Age Group	# Positive	# Tested	% Positive
13-19	0	26	0
20-29	4	80	44
30-39	4	47	44
40-49	1	17	11
50 +	0	10	0
Unknown	0	0	0
Total	**9**	**180**	**100**

Table 6.5

Heterosexual			
Race	# Positive	# Tested	% Positive
Black	7	305	78
Others/Unknown	0	50	0
White	2	2048	22
Total	**9**	**2403**	**100**

IDU			
Race	# Positive	# Tested	% Positive
Black	2	7	50
Others/Unknown	0	6	0
White	2	183	50
Total	**4**	**196**	**100**

MSM			
Race	# Positive	# Tested	% Positive
Black	3	16	33
Others/Unknown	0	3	0
White	6	161	67
Total	**9**	**180**	**100**

Heterosexual			
Gender	# Positive	# Tested	% Positive
Female	6	1633	67
Male	3	770	33
Total	**9**	**2403**	**100**

IDU			
Gender	# Positive	# Tested	% Positive
Female	2	82	50
Male	2	114	50
Total	**4**	**196**	**100**

District 1:

District 1 identified 25 infections from testing 3,379 individuals. The HIV positive test results identified with the greatest frequency among MSM (9/180) and heterosexual (9/2,403). One striking result is identified among IDUs with four positive among 196 individuals tested. Though this is a smaller number of positives identified among the IDU risk population, there were fewer tested. For comparison, there are nine positives results identified among heterosexuals, but 2,403 were tested. The positive testing results totaled 22/25 positive among individuals identified in these three risk groups.

After analyzing the demographics of these three groups of high risk behaviors, the nine heterosexuals were primarily younger (5/9 were among 13-19 and 20-29 age groups), black (7/9), and females (6/9). The 4 IDUs were evenly distributed one each among the four age groups, 20-29, 30-39, 40-49, and 50+. The IDUs were also evenly split when looking at race, two white and two black cases. Gender analysis of the high risk heterosexual behavior uncovered six females, while three were males. There were more individuals identified with heterosexual high risk behavior who were tested (2,403) than MSM (180) or IDUs (196). Therefore the heterosexual positive cases were not as representative as were the 4 person who identified IDU as their high risk behavior from the lab results. The MSM positive individuals were primarily 20- 39 (8/9). The breakdown by age group was 4 in 20-29 and 4 in 30-39 age groups.

There were more white (6/9) MSM risk behaviors than blacks identified, but 3/9 cases represent approximately 33.3%. According to census population data for this district's counties, blacks represent only 8% (17,732) of the total population of 222,819. Race should be weighted in this area due to the disproportionate number of infections.

West Virginia Office of Laboratory Services HIV Testing
District 1 HIV LAB Screening Results
2002-2006

Risk Category	No. of Positive	No. of Tested	% of Positive
MSM	9	180	5.0%
MSM/IDU	0	6	0.0%
IDU	4	196	2.0%
Heterosexual	9	2,403	0.4%
Coagulation Disorder	0	3	0.0%
Transfusion/Transplant	0	72	0.0%
No Identified Risk/Other	3	519	0.6%
Total	**25**	**3,379**	**0.7%**

West Virginia and District 1 Population by Race, 2000

District	Population	White	Non-White
District 1	222,819	204,505	18,314
West Virginia	1,808,344	1,718,777	89,567

Table 6.6

West Virginia Office of Laboratory Services (OLS)
HIV LAB Screening Results by Age Group, Race, Gender, and Risk Behavior
2002-2006

DISTRICT 2

Heterosexual			
Age Group	# Positive	# Tested	% Positive
< 5	0	3	0
5-12	0	4	0
13-19	1	499	5
20-29	9	1610	47
30-39	6	550	32
40-49	2	291	11
50 +	0	158	0
Unknown	1	32	5
Total	**19**	**3147**	**100**

IDU			
Age Group	# Positive	# Tested	% Positive
13-19	0	16	0
20-29	0	118	0
30-39	0	78	0
40-49	0	42	0
50 +	0	12	0
Unknown	0	3	0
Total	**0**	**269**	**0**

MSM			
Age Group	# Positive	# Tested	% Positive
13-19	0	27	0
20-29	7	103	47
30-39	4	44	27
40-49	3	31	20
50 +	1	16	7
Unknown	0	9	0
Total	**15**	**230**	**100**

Table 6.7

Heterosexual			
Race	# Positive	# Tested	% Positive
Black	3	468	16
Others/Unknown	0	94	0
White	16	2586	84
Total	**19**	**3148**	**100**

IDU			
Race	# Positive	# Tested	% Positive
Black	0	10	0
Others/Unknown	0	7	0
White	0	252	0
Total	**0**	**269**	**0**

MSM			
Race	# Positive	# Tested	% Positive
Black	1	15	7
Others/Unknown	0	2	0
White	14	213	93
Total	**15**	**230**	**100**

Heterosexual			
Gender	# Positive	# Tested	% Positive
Female	3	1696	16
Male	16	1452	84
Total	**19**	**3148**	**100**

IDU			
Gender	# Positive	# Tested	% Positive
Female	0	142	0
Male	0	127	0
Total	**0**	**269**	**0**

District 2:

District 2 identified 51 individuals found to be positive from 5,508 persons who were tested for HIV. Most of the positives identified heterosexual high risk behavior (19/3,148). It was, however, the risk behavior with the most number of individuals tested, 1,148. There were 15/230 individuals who identified MSM as the risk behavior. Since this was a smaller number of persons tested with this identified risk behavior it is a more heavily impacted risk behavior.

Seven of the 15 positive MSM were among the 20-29, 4 were among the 30-39 age group , and 3 among the 40-49 age group. Fourteen identified white and one black as their race. Though the heterosexuals had more persons tested, they identified 16/19 being as white race, while 16/19 were males with only 3,148 tested. The high number (17/1,819) of other/unknown category as well as four blacks identified as infected for all of the three high risk behaviors in these testing results indicates a barrier to testing minorities and make targeting interventions difficult for this district .

West Virginia Office of Laboratory Services HIV Testing
District 2 HIV LAB Screening Results
2002-2006

Risk Category	No. of Positive	No. of Tested	% of Positive
MSM	15	230	6.5%
MSM/IDU	0	5	0.0%
IDU	0	269	0.0%
Heterosexual	19	3,148	0.6%
Coagulation Disorder	0	-	0.0%
Transfusion/Transplant	0	37	0.0%
No Identified Risk/Other	17	1,819	0.9%
Total	**51**	**5,508**	**0.9%**

West Virginia and District 2 Population by Race, 2000

District	Population	White	Non-White
District 2	**253,715**	**243,738**	**9,977**
West Virginia	**1,808,344**	**1,718,777**	**89,567**

Table 6.8

West Virginia Office of Laboratory Services (OLS)
HIV LAB Screening Results by Age Group, Race, Gender, and Risk Behavior
2002-2006

DISTRICT 3

Heterosexual			
Age Group	# Positive	# Tested	% Positive
< 5	0	1	0
5-12	0	0	0
13-19	1	229	8
20-29	4	1002	31
30-39	8	459	62
40-49	0	315	0
50 +	0	155	0
Unknown	0	19	0
Total	**13**	**2180**	**100**

IDU			
Age Group	# Positive	# Tested	% Positive
13-19	0	4	0
20-29	0	45	0
30-39	0	35	0
40-49	2	27	100
50 +	0	3	0
Unknown	0	0	0
Total	**2**	**114**	**100**

MSM			
Age Group	# Positive	# Tested	% Positive
13-19	0	26	0
20-29	12	189	48
30-39	4	145	16
40-49	7	84	28
50 +	2	38	8
Unknown	0	4	0
Total	**25**	**486**	**100**

Heterosexual			
Race	# Positive	# Tested	% Positive
Black	4	469	31
Others/Unknown	0	111	0
White	9	1600	69
Total	**13**	**2180**	**100**

IDU			
Race	# Positive	# Tested	% Positive
Black	0	5	0
Others/Unknown	0	2	0
White	2	107	100
Total	**2**	**114**	**100**

MSM			
Race	# Positive	# Tested	% Positive
Black	3	29	12
Others/Unknown	1	15	4
White	21	442	84
Total	**25**	**486**	**100**

Heterosexual			
Gender	# Positive	# Tested	% Positive
Female	3	1301	23
Male	10	879	77
Total	**13**	**2180**	**100**

IDU			
Gender	# Positive	# Tested	% Positive
Female	0	68	0
Male	2	46	100
Total	**2**	**114**	**100**

Table 6.9

District 3:

There were 44 positive HIV lab results from 3,739 persons tested in district 3. Most of the positives identified MSM as the high risk behavior (25/486). There were 13 identified infections in the heterosexual population but 2,180 individuals were tested. Only 114 individuals were tested identifying as DU risk behavior and two positives were identified.

Twleve of the 28 positives MSM were among the 20-29, while four were 30-39 and seven were 40-49 age groups. Twenty one MSM were white, 3 were black, and one unknown. Eight heterosexuals were in the 30-39 with four in 20-29 and one was in 13-19 age groups. There were 10 males and three females identified as heterosexual contact. It should be noted that a Job Corp site is located in this district and has mandatory HIV testing and should be weighted out since individuals who test positive are out of state and referred back to their state of residence once HIV status is identified.

West Virginia Office of Laboratory Services HIV Testing District 3 HIV LAB Screening Results 2002-2006			
Risk Category	**No. of Positive**	**No. of Tested**	**% of Positive**
MSM	25	486	5.1%
MSM/IDU	0	5	0.0%
IDU	2	114	1.8%
Heterosexual	13	2,180	0.6%
Coagulation Disorder	0	-	0.0%
Transfusion/Transplant	0	45	0.0%
No Identified Risk/Other	4	909	0.4%
Total	**44**	**3,739**	**1.2%**

West Virginia and District 3 Population by Race, 2000			
District	**Population**	**White**	**Non-White**
District 3	**287,527**	**266,837**	**20,690**
West Virginia	**1,808,344**	**1,718,777**	**89,567**

Table 6.10

West Virginia Office of Laboratory Services (OLS)
HIV LAB Screening Results by Age Group, Race, Gender, and Risk Behavior
2002-2006

DISTRICT 4

Heterosexual			
Age Group	# Positive	# Tested	% Positive
< 5	0	0	0
5-12	0	1	0
13-19	1	252	25
20-29	0	744	0
30-39	1	185	25
40-49	2	135	50
50 +	0	74	0
Unknown	0	14	0
Total	**4**	**1405**	**100**

IDU			
Age Group	# Positive	# Tested	% Positive
13-19	0	33	0
20-29	1	151	100
30-39	0	41	0
40-49	0	20	0
50 +	0	6	0
Unknown	0	3	0
Total	**1**	**254**	**100**

MSM			
Age Group	# Positive	# Tested	% Positive
13-19	0	12	0
20-29	1	46	25
30-39	2	15	50
40-49	1	16	25
50 +	0	7	0
Unknown	0	2	0
Total	**4**	**98**	**100**

Table 6.11

Heterosexual			
Race	# Positive	# Tested	% Positive
Black	0	100	0
Others/Unknown	0	35	0
White	4	1270	100
Total	**4**	**1405**	**100**

IDU			
Race	# Positive	# Tested	% Positive
Black	0	6	0
Others/Unknown	0	1	0
White	1	247	0
Total	**1**	**254**	**0**

MSM			
Race	# Positive	# Tested	% Positive
Black	0	3	0
Others/Unknown	0	3	0
White	4	92	100
Total	**4**	**98**	**100**

Heterosexual			
Gender	# Positive	# Tested	% Positive
Female	4	628	100
Male	0	777	0
Total	**4**	**1405**	**100**

IDU			
Gender	# Positive	# Tested	% Positive
Female	1	74	100
Male	0	180	0
Total	**1**	**254**	**100**

District 4:

District 4 identified 10 HIV infections from OLS laboratory testing from 2,572 individuals. The MSM population was identified as the predominant risk factor for infection (4/98). There were also 4 heterosexual infections, but 1,405 individuals were tested to uncover these positives. All 4 were white females. Only 628 females were tested in this district and when males are subtracted from the denominator of the heterosexual infection percentage, the true percentage is 0.64%, making white heterosexual females the second high risk factor in this district. White female age groups ranged from 13-49 with one in 13-19, one in 30-39 and two in 40-49 age group.

West Virginia Office of Laboratory Services HIV Testing District 4 HIV LAB Screening Results 2002-2006			
Risk Category	**No. of Positive**	**No. of Tested**	**% of Positive**
MSM	4	98	4.1%
MSM/IDU	0	8	0.0%
IDU	1	254	0.4%
Heterosexual	4	1,405	0.3%
Coagulation Disorder	0	2	0.0%
Transfusion/Transplant	0	39	0.0%
No Identified Risk/Other	1	766	0.1%
Total	**10**	**2,572**	**0.4%**

West Virginia and District 4 Population by Race, 2000			
District	**Population**	**White**	**Non-White**
District 4	**142,146**	**136,223**	**5,923**
West Virginia	**1,808,344**	**1,718,777**	**89,567**

Table 6.12

West Virginia Office of Laboratory Services (OLS)
HIV LAB Screening Results by Age Group, Race, Gender, and Risk Behavior
2002-2006

DISTRICT 5

Heterosexual			
Age Group	# Positive	# Tested	% Positive
< 5	0	0	0
5-12	0	0	0
13-19	1	192	5
20-29	9	530	47
30-39	6	173	32
40-49	2	138	11
50 +	0	49	0
Unknown	1	3	5
Total	**19**	**1085**	**100**

IDU			
Age Group	# Positive	# Tested	% Positive
13-19	0	8	0
20-29	0	80	0
30-39	0	54	0
40-49	0	27	0
50 +	0	6	0
Unknown	0	1	0
Total	**0**	**176**	**0**

MSM			
Age Group	# Positive	# Tested	% Positive
13-19	0	25	0
20-29	4	98	80
30-39	1	37	20
40-49	0	24	0
50 +	0	12	0
Unknown	0	1	0
Total	**5**	**197**	**100**

Heterosexual			
Race	# Positive	# Tested	% Positive
Black	0	43	0
Others/Unknown	0	16	0
White	1	1026	100
Total	**1**	**1085**	**100**

IDU			
Race	# Positive	# Tested	% Positive
Black	0	1	0
Others/Unknown	0	2	0
White	0	173	0
Total	**0**	**176**	**0**

MSM			
Race	# Positive	# Tested	% Positive
Black	0	5	0
Others/Unknown	0	4	0
White	5	188	100
Total	**5**	**197**	**100**

Heterosexual			
Gender	# Positive	# Tested	% Positive
Female	1	651	100
Male	0	434	0
Total	**1**	**1085**	**100**

IDU			
Gender	# Positive	# Tested	% Positive
Female	0	86	0
Male	0	90	0
Total	**0**	**176**	**0**

Table 6.13

District 5:

District 5 identified 10 HIV infections from lab testing for 2,544 individuals. MSM and IDU were the predominant risk behaviors (6/10) for infection. Six infection cases were white males. The one heterosexual infection was a white female in the 20-29 age group. There were three positives in 1,024 tests with no identified risk.

West Virginia Office of Laboratory Services HIV Testing District 5 HIV LAB Screening Results 2002-2006			
Risk Category	**No. of Positive**	**No. of Tested**	**% of Positive**
MSM	5	197	2.5%
MSM/IDU	1	12	8.3%
IDU	0	176	0.0%
Heterosexual	1	1,085	0.1%
Coagulation Disorder	0	3	0.0%
Transfusion/Transplant	0	47	0.0%
No Identified Risk/Other	3	1,024	0.3%
Total	**10**	**2,544**	**0.4%**

West Virginia and District 5 Population by Race, 2000			
District	**Population**	**White**	**Non-White**
District 5	**172,336**	**168,908**	**3,428**
West Virginia	**1,808,344**	**1,718,777**	**89,567**

Table 6.14

West Virginia Office of Laboratory Services (OLS)
HIV LAB Screening Results by Age Group, Race, Gender, and Risk Behavior
2002-2006

DISTRICT 6

Heterosexual			
Age Group	# Positive	# Tested	% Positive
< 5	0	0	0
5-12	0	0	0
13-19	0	139	0
20-29	1	339	50
30-39	1	127	50
40-49	0	92	0
50 +	0	47	0
Unknown	0	8	0
Total	**2**	**752**	**100**

IDU			
Age Group	# Positive	# Tested	% Positive
13-19	0	3	0
20-29	2	60	100
30-39	0	29	0
40-49	0	16	0
50 +	0	5	0
Unknown	0	1	0
Total	**2**	**114**	**100**

MSM			
Age Group	# Positive	# Tested	% Positive
13-19	0	13	0
20-29	0	20	0
30-39	0	11	0
40-49	0	14	0
50 +	0	4	0
Unknown	1	3	100
Total	**1**	**65**	**100**

Table 6.15

Heterosexual			
Race	# Positive	# Tested	% Positive
Black	0	55	0
Others/Unknown	0	13	0
White	2	684	100
Total	**2**	**752**	**100**

IDU			
Race	# Positive	# Tested	% Positive
Black	0	5	0
Others/Unknown	0	2	0
White	2	107	100
Total	**2**	**114**	**100**

MSM			
Race	# Positive	# Tested	% Positive
Black	1	2	100
Others/Unknown	0	1	0
White	0	62	0
Total	**1**	**65**	**100**

Heterosexual			
Gender	# Positive	# Tested	% Positive
Female	1	384	50
Male	1	368	50
Total	**2**	**752**	**100**

IDU			
Gender	# Positive	# Tested	% Positive
Female	0	37	0
Male	2	77	100
Total	**2**	**114**	**100**

District 6:

District 6 identified seven HIV infections from 1,176 individuals in five years of testing. Five of the seven infections were males, however, one female was identified in the heterosexual risk behavior. One MSM was black, and the other four individuals identified with HIV infections were whites. Three of the six HIV reports were identified among a younger age group, 20-29, two of which were the IDU reports.

West Virginia Office of Laboratory Services HIV Testing District 6 HIV LAB Screening Results 2002-2006			
Risk Category	**No. of Positive**	**No. of Tested**	**% of Positive**
MSM	1	65	1.5%
MSM/IDU	0	3	0.0%
IDU	2	114	1.8%
Heterosexual	2	752	0.3%
Coagulation Disorder	0	-	0.0%
Transfusion/Transplant	0	10	0.0%
No Identified Risk/Other	2	232	0.9%
Total	**7**	**1,176**	**0.6%**

West Virginia and District 6 Population by Race, 2000			
District	**Population**	**White**	**Non-White**
District 6	**158,753**	**153,681**	**5,072**
West Virginia	**1,808,344**	**1,718,777**	**89,567**

Table 6.16

West Virginia Office of Laboratory Services (OLS)
HIV LAB Screening Results by Age Group, Race, Gender, and Risk Behavior
2002-2006

DISTRICT 7

Heterosexual			
Age Group	# Positive	# Tested	% Positive
< 5	0	0	0
5-12	0	0	0
13-19	0	394	0
20-29	3	1344	38
30-39	3	451	38
40-49	2	264	25
50 +	0	118	0
Unknown	0	31	0
Total	**8**	**2602**	**100**

IDU			
Age Group	# Positive	# Tested	% Positive
13-19	0	14	0
20-29	0	111	0
30-39	0	55	0
40-49	0	33	0
50 +	0	5	0
Unknown	0	5	0
Total	**0**	**223**	**0**

MSM			
Age Group	# Positive	# Tested	% Positive
13-19	2	54	15
20-29	8	232	62
30-39	3	65	23
40-49	0	25	0
50 +	0	18	0
Unknown	0	20	0
Total	**13**	**414**	**100**

Table 6.17

Heterosexual			
Race	# Positive	# Tested	% Positive
Black	1	207	13
Others/Unknown	0	107	0
White	7	2288	88
Total	**8**	**2602**	**100**

IDU			
Race	# Positive	# Tested	% Positive
Black	0	3	0
Others/Unknown	0	4	0
White	0	216	0
Total	**0**	**223**	**0**

MSM			
Race	# Positive	# Tested	% Positive
Black	1	17	8
Others/Unknown	0	12	0
White	12	385	92
Total	**13**	**414**	**100**

Heterosexual			
Gender	# Positive	# Tested	% Positive
Female	1	1391	13
Male	7	1211	88
Total	**8**	**2602**	**100**

IDU			
Gender	# Positive	# Tested	% Positive
Female	0	100	0
Male	0	123	0
Total	**0**	**223**	**0**

District 7:

District 7 identified 27 infections from testing 4,518 individuals. Thirteen of the 27 infections were MSM with a younger age group than the rest of the state with 2 in 13-19, 8 in 20-29 and 3 in 30-39 age group. There were five positives in 1,228 tests with no identified risk.

West Virginia Office of Laboratory Services HIV Testing District 7 HIV LAB Screening Results 2002-2006			
Risk Category	**No. of Positive**	**No. of Tested**	**% of Positive**
MSM	13	414	3.1%
MSM/IDU	0	10	0.0%
IDU	0	223	0.0%
Heterosexual	8	2,602	0.3%
Coagulation Disorder	0	-	0.0%
Transfusion/Transplant	1	43	0.0%
No Identified Risk/Other	5	1,226	0.4%
Total	**27**	**4,518**	**0.6%**

West Virginia and District 7 Population by Race, 2000			
District	**Population**	**White**	**Non-White**
District 7	**358,565**	**344,281**	**14,284**
West Virginia	**1,808,344**	**1,718,777**	**89,567**

Table 6.18

West Virginia Office of Laboratory Services (OLS)
HIV LAB Screening Results by Age Group, Race, Gender, and Risk Behavior
2002-2006

DISTRICT 8

Heterosexual			
Age Group	# Positive	# Tested	% Positive
< 5	0	1	0
5-12	0	2	0
13-19	0	587	0
20-29	1	1146	50
30-39	0	412	0
40-49	1	235	50
50 +	0	114	0
Unknown	0	15	0
Total	**2**	**2512**	**100**

IDU			
Age Group	# Positive	# Tested	% Positive
13-19	0	16	0
20-29	0	130	0
30-39	0	57	0
40-49	0	37	0
50 +	0	7	0
Unknown	0	1	0
Total	**0**	**248**	**0**

MSM			
Age Group	# Positive	# Tested	% Positive
13-19	0	26	0
20-29	1	67	20
30-39	2	45	40
40-49	2	18	40
50 +	0	20	0
Unknown	0	0	0
Total	**5**	**176**	**100**

Table 6.19

Heterosexual			
Race	# Positive	# Tested	% Positive
Black	1	348	50
Others/Unknown	1	114	50
White	0	2050	0
Total	**2**	**2512**	**100**

IDU			
Race	# Positive	# Tested	% Positive
Black	0	13	0
Others/Unknown	0	6	0
White	0	229	0
Total	**0**	**248**	**0**

MSM			
Race	# Positive	# Tested	% Positive
Black	0	16	0
Others/Unknown	1	6	20
White	4	154	80
Total	**5**	**176**	**100**

Heterosexual			
Gender	# Positive	# Tested	% Positive
Female	1	1552	50
Male	1	960	50
Total	**2**	**2512**	**100**

IDU			
Gender	# Positive	# Tested	% Positive
Female	0	107	0
Male	0	141	0
Total	**0**	**248**	**0**

District 8:

District 8 identified 10 infections from testing 4,695 individuals. Three of the 10 infections (30%) were in the no identified risk/other risk category which is problematic when targeting disease intervention activities in this district. Four of the infections were among whites and one other/unknown.

West Virginia Office of Laboratory Services HIV Testing District 8 HIV LAB Screening Results 2002-2006			
Risk Category	**No. of Positive**	**No. of Tested**	**% of Positive**
MSM	5	176	2.8%
MSM/IDU	0	9	0.0%
IDU	0	248	0.0%
Heterosexual	2	2,512	0.1%
Coagulation Disorder	0	3	0.0%
Transfusion/Transplant	0	29	0.0%
No Identified Risk/Other	3	1,718	0.2%
Total	**10**	**4,695**	**0.2%**

West Virginia and District 8 Population by Race, 2000			
District	**Population**	**White**	**Non-White**
District 8	**212,483**	**200,604**	**11,879**
West Virginia	**1,808,344**	**1,718,777**	**89,567**

Table 6.20

WV OLS HIV Lab Results and HARS Cases Comparison by District, 2002-2006

HARS HIV/AIDS Reported Cases

N=628

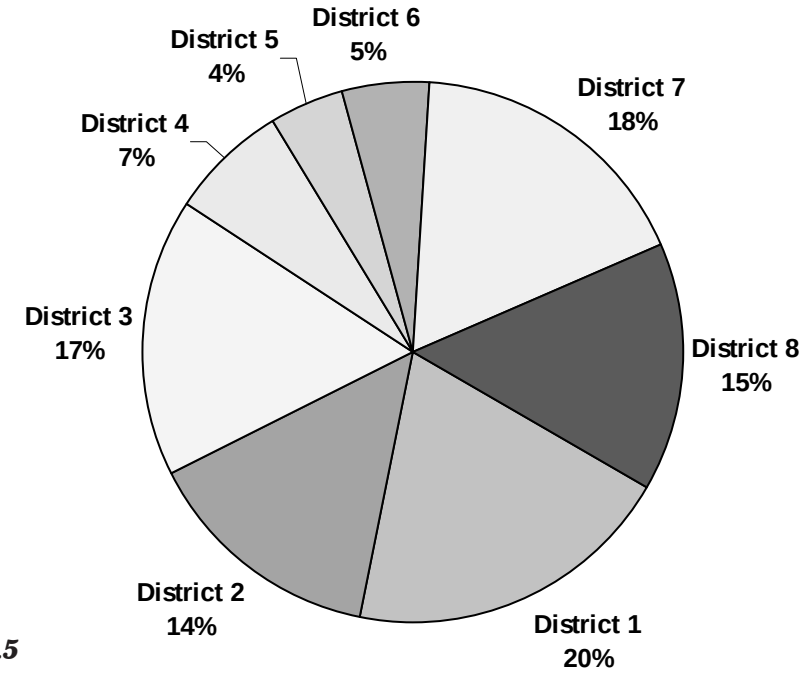


Figure 6.5

WV OLS HIV Lab Postive Results

N=192

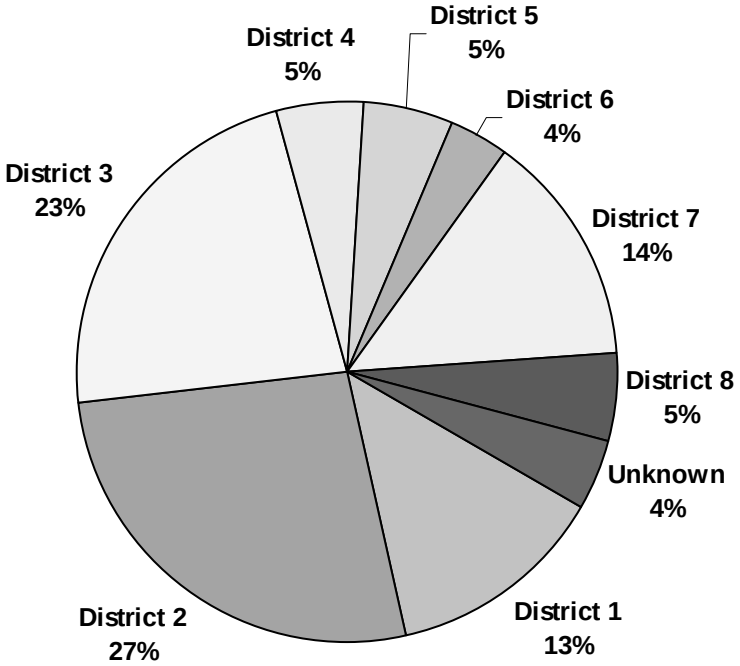
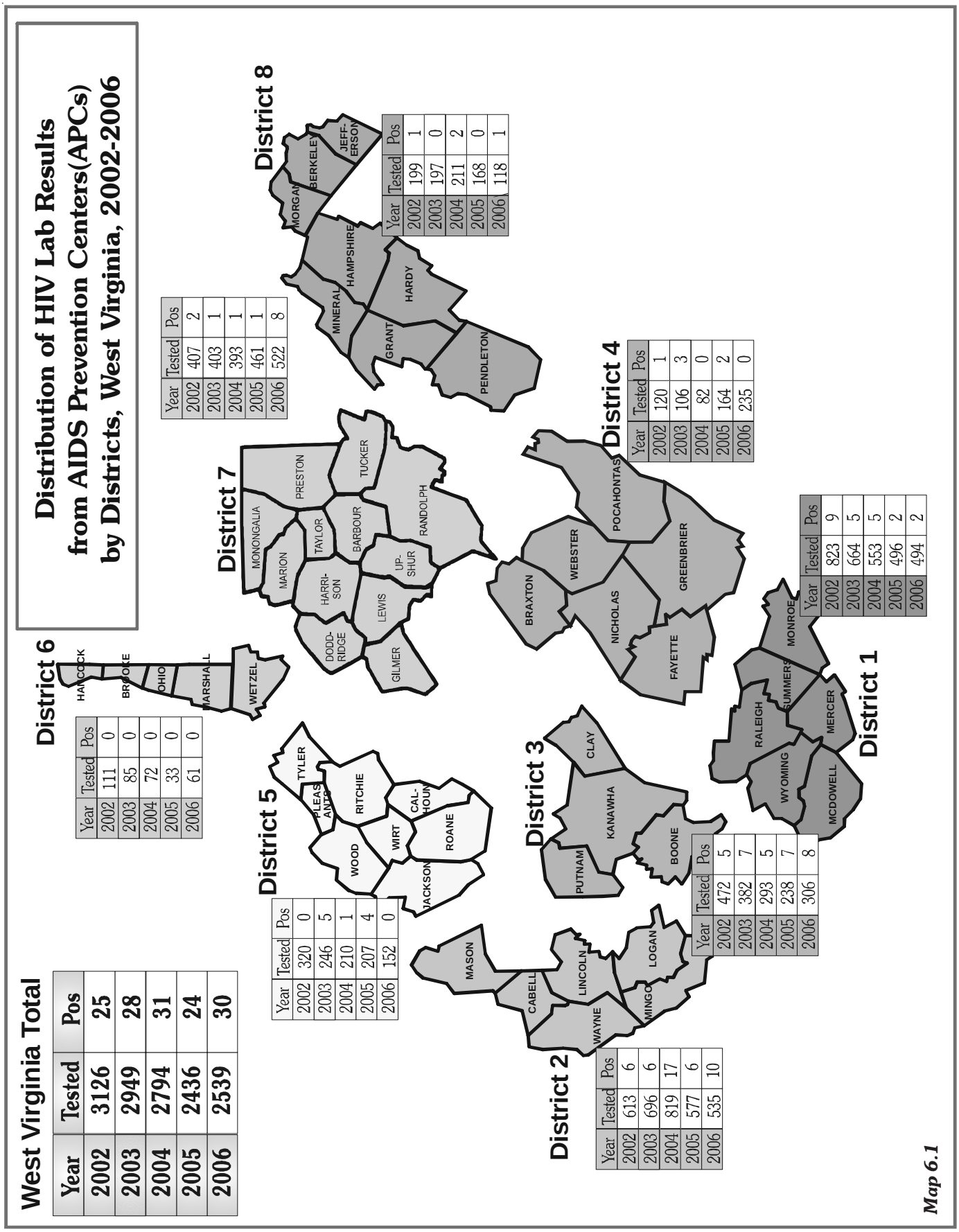


Figure 6.6



Year	Tested	Pos
2002	3126	25
2003	2949	28
2004	2794	31
2005	2436	24
2006	2539	30

Year	Tested	Pos
2002	111	0
2003	85	0
2004	72	0
2005	33	0
2006	61	0

Year	Tested	Pos
2002	320	0
2003	246	5
2004	210	1
2005	207	4
2006	152	0

Year	Tested	Pos
2002	407	2
2003	403	1
2004	393	1
2005	461	1
2006	522	8

Year	Tested	Pos
2002	199	1
2003	197	0
2004	211	2
2005	168	0
2006	118	1

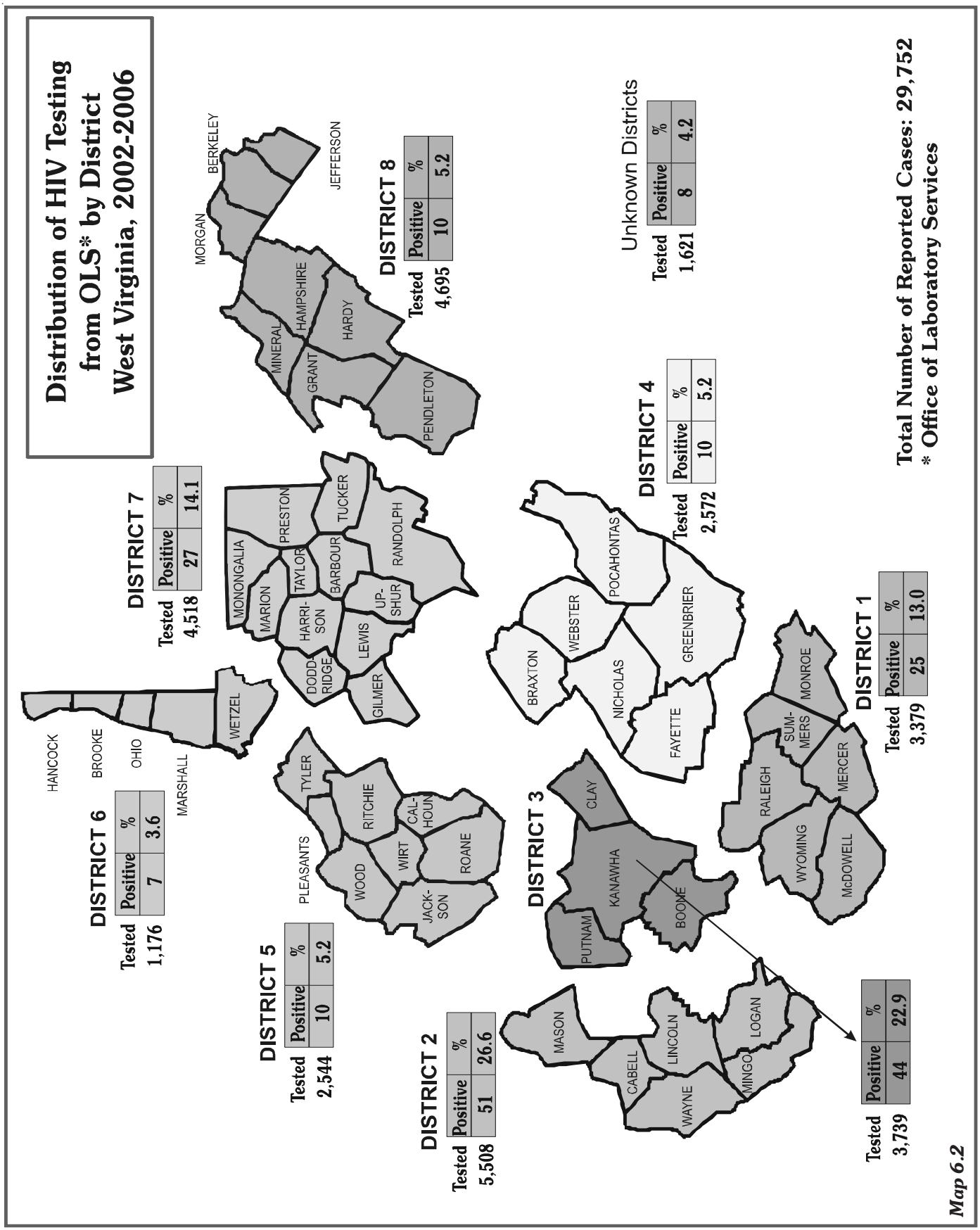
Year	Tested	Pos
2002	120	1
2003	106	3
2004	82	0
2005	164	2
2006	235	0

Year	Tested	Pos
2002	613	6
2003	696	6
2004	819	17
2005	577	6
2006	535	10

Year	Tested	Pos
2002	472	5
2003	382	7
2004	293	5
2005	238	7
2006	306	8

Year	Tested	Pos
2002	823	9
2003	664	5
2004	553	5
2005	496	2
2006	494	2

Map 6.1


Distribution of HIV Testing from OLS* by District West Virginia, 2002-2006
DISTRICT 6
Tested 1,176
Positive 7
% 3.6
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
DISTRICT 7
Tested 4,518
Positive 27
% 14.1
MONONGALIA
MARION
HARRI-SON
TAYLOR
PRESTON
BARBOUR
TUCKER
DODD-RIDGE
GILMER
LEWIS
UP-SHUR
RANDOLPH
DISTRICT 8
Tested 4,695
Positive 10
% 5.2
MORGAN
BERKELEY
JEFFERSON
MINERAL
HAMPSHIRE
GRANT
HARDY
PENDLETON
Unknown Districts
Tested 1,621
Positive 8
% 4.2
DISTRICT 4
Tested 2,572
Positive 10
% 5.2
POCAHONTAS
BRAXTON
WEBSTER
NICHOLAS
GREENBRIER
FAYETTE
DISTRICT 5
Tested 2,544
Positive 10
% 5.2
PLEASANTS
TYLER
RITCHIE
WOOD
WIRT
CAL-HOUN
JACK-SON
ROANE
DISTRICT 3
CLAY
PUTNAM
KANAWHA
BOONE
DISTRICT 1
Tested 3,379
Positive 25
% 13.0
MONROE
SUM-MERS
RALEIGH
MERCER
WYOMING
McDOWELL
DISTRICT 2
Tested 5,508
Positive 51
% 26.6
MASON
CABELL
LINCOLN
WAYNE
MINGO
LOGAN
Tested 3,739
Positive 44
% 22.9
Total Number of Reported Cases: 29,752
* Office of Laboratory Services

Map 6.2

SECTION 2:

Tuberculosis in West Virginia

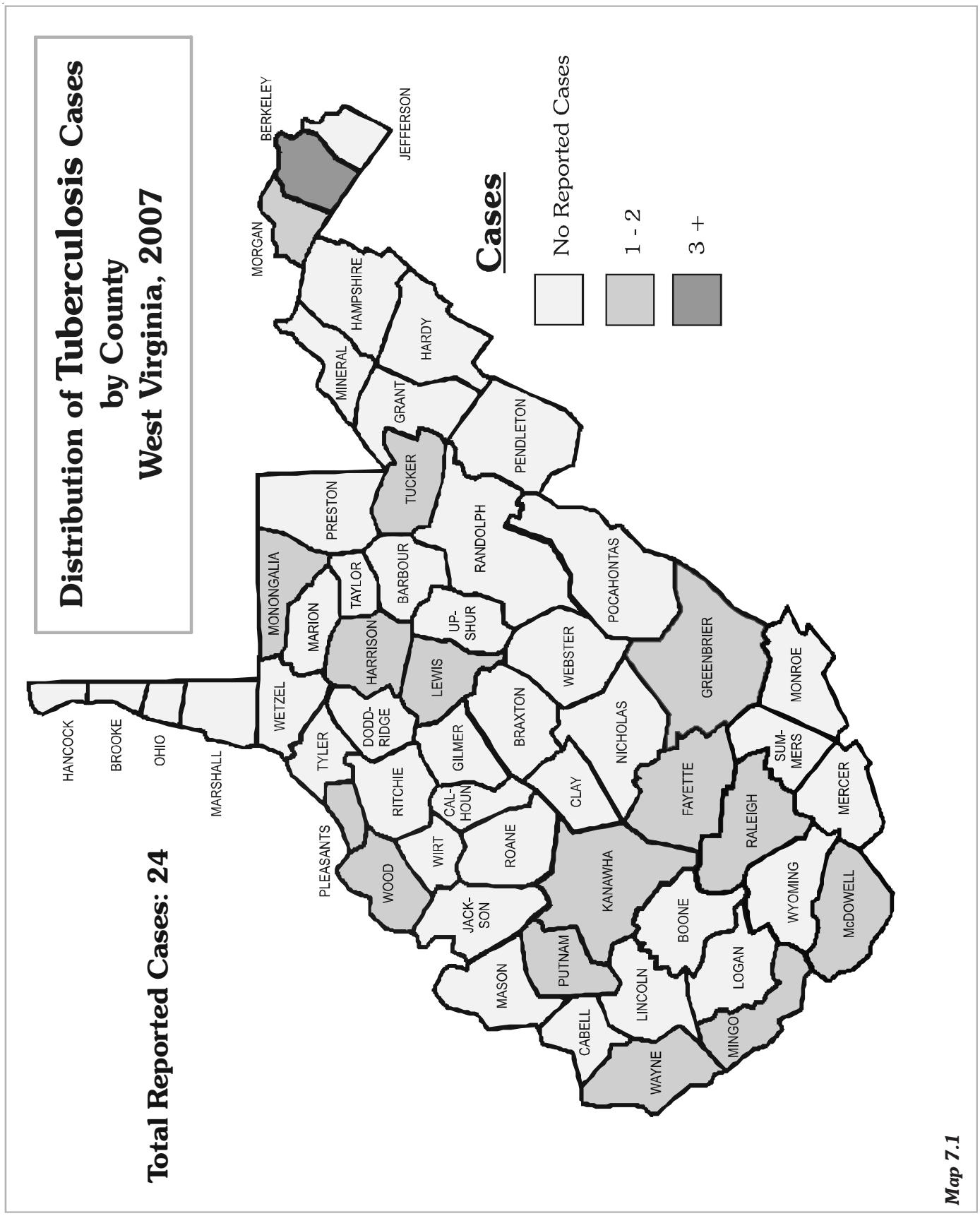
West Virginia Matching of Tuberculosis and AIDS Cases 1984-2006

West Virginia Tuberculosis and AIDS Cases 1984 - 2006			
Year of Report	**# of TB Cases**	**# of AIDS Cases**	**# of TB Cases With AIDS**
1984-90	696	172	1
1991	64	69	1
1992	92	44	2
1993	75	98	2
1994	80	89	0
1995	71	121	1
1996	57	110	1
1997	54	113	2
1998	42	85	0
1999	41	58	0
2000	33	47	0
2001	32	87	3
2002	30	77	0
2003	21	77	0
2004	24	79	1
2005	28	69	0
2006	22	60	1
TOTAL	**1,462**	**1,455**	**15**

Table 7.1

In 2006, one individual was co-infected with AIDS and zero active Tuberculosis (TB) who lived out of state for many years and moved back to West Virginia just prior to diagnosis (Table 7.1). Tuberculosis is a disease caused by a bacteria called *Mycobacterium tuberculosis*. The bacteria can attack any part of the body, but it usually attacks the lungs. TB disease was once the leading cause of death in the United States.

From 1953, when nationwide reporting first began, to 1984, the number of TB cases reported in the U.S. dropped an average of almost 6% per year; from 84,304 cases in 1953 to 22,255 cases in 1984. The development of isoniazid (INH) in 1952 was a major factor for the decline in cases. Around 1984 the number of TB cases started to rise. This was first noticed in states that also had the greatest number of persons diagnosed with AIDS. The resurgence was attributed to not only AIDS, but also to a deterioration of the public health infrastructure as well as an increasing number of cases among the foreign-born (27% of cases reported to CDC in 1991). By 1992 the number of reported cases of TB in the United States was 26,673; a 20% increase since 1985. A great amount of effort and money went into improving the public health infrastructure, new culturing techniques resulting in speedier reporting by laboratories, development of effective drugs for multi-drug resistant strains, and treatment by Directly Observed Therapy (DOT). The number of TB cases reported in the United States has decreased to 13,293 cases, with a case rate of 4.4/100,000 population.


Distribution of Tuberculosis Cases
by County
West Virginia, 2007
Total Reported Cases: 24
Cases
No Reported Cases
1 - 2
3 +
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
TYLER
PLEASANTS
WOOD
RITCHIE
WIRT
JACK-SON
MASON
CABELL
WAYNE
PUTNAM
ROANE
CAL-HOUN
GILMER
DODD-RIDGE
HARRISON
LEWIS
BRAXTON
CLAY
KANAWHA
LINCOLN
BOONE
LOGAN
MINGO
MONONGALIA
MARION
TAYLOR
PRESTON
BARBOUR
UP-SHUR
WEBSTER
NICHOLAS
FAYETTE
RALEIGH
SUM-MERS
WYOMING
MERCER
McDOWELL
MONROE
GREENBRIER
POCAHONTAS
RANDOLPH
TUCKER
PENDLETON
GRANT
MINERAL
HAMPSHIRE
HARDY
MORGAN
BERKELEY
JEFFERSON

Map 7.1

TB is spread primarily through tiny airborne droplet nuclei expelled when a person with infectious TB forcefully exhales air such as when coughing, laughing, or singing. Transmission may occur when an uninfected person breathes in these droplet nuclei. Factors that contribute to whether infection occurs include the environment where exposure occurred, infectiousness of the person with TB and the duration of exposure. For example close physical contact in a poorly ventilated, small room with a person with smear positive TB leads to a greater risk of infection.

TB bacteria become active if the immune system can't stop them from growing. The active bacteria begin to multiply in the body and cause TB disease. Many people who have TB infection never develop TB disease. In this group of people, the TB bacteria remain inactive for a lifetime without causing disease. But in other people, especially people who have weak immune systems, the bacteria becomes active and causes TB.

People infected with HIV virus, the virus that causes AIDS, and people living with AIDS have very weak immune systems and therefore are very likely to be infected and develop active disease if exposed.

The Tuberculosis Control Program, under the Division of Surveillance and Disease Control, provides medication, chest x-rays, liver function studies, clinical exams, technical assistance and educational services to prevent and control infection and disease caused by *Mycobacterium tuberculosis*. The Program is responsible for disease surveillance, monitoring of TB control activities, and individual case management consultation to local health departments and other health care providers throughout the state.

The West Virginia AIDS and Tuberculosis registries are matched semi-annually to determine if there have been any individuals reported with both diseases. Since the inception of West Virginia's AIDS registry on April 1, 1984, there have been a total of 14 co-infected AIDS/TB cases reported in the state (Table 7.1).

It should be a high priority for HIV positive individuals to be screened for TB infection and become candidates for TB preventive therapy. Likewise, persons found to be infected with TB should be counseled about risk behaviors of HIV and offered HIV testing. A concerted effort should be made to screen for HIV or TB following the diagnosis of either disease.

Individuals who are positive for HIV are at special risk of acquiring TB infection. Studies have shown that HIV-positive individuals, when exposed to a person with TB disease who is minimally infectious, or exposed for short periods of time, have developed TB infection and/or disease at much higher rates than typically seen among persons who have healthy immune systems.

Seventy one percent (71%) of TB cases in West Virginia occured in the lung. Persons who are HIV-positive are more likely to have TB outside the lung. Normal chest x-rays may result even when the sputum cultures grew TB. Also, when someone is immunosuppressed, which may be caused by

disease or immunosuppressive drugs, the person may not have the ability to mount an immune response to skin test antigens and therefore the tuberculin skin test may give a false-negative response even though the person may have latent TB infection or active TB disease. This is more common as CD4 counts decline, particularly below 400/mm. Standard treatment regimens have proven to be effective for persons who are immunosuppressed. Multi-drug resistant TB (MDR-TB) is a potential problem, though resistance has not occurred in the AIDS population in West Virginia. The rate of drug interaction is relatively high among HIV co-infected TB patients and therefore should be monitored closely. TB-HIV is preventable, and INH is effective for latent TB infection (LTBI). Other treatment regimens have been proven to be effective and are explained in detail in the Morbidity and Mortality Weekly Report (MMWR) prepared by the Centers for Disease Control and Prevention (CDC), June 9, 2000/ Vol. 49/ No. RR-6. Electronic copy is available from CDC's World Wide Web server at ***http://www.cdc.gov.*** In addition to the above mentioned document, CDC also has a wealth of information about TB in their web site at ***http://www.cdc.gov/nchstp/tb/faqs/qa.htm***.

Map 7.1 shows where they reported active cases of TB disease in 2005. Typically cases occur sporadically throughout the state with a persistence in the south western counties. The counties in the tip of the eastern panhandle those close to Baltimore, MD and Washington, D.C. are showing an increase in tuberculosis activities.

West Virginia Tuberculosis Mortality 1984 - 2006

The number of annual tuberculosis deaths in West Virginia has been below 10 since 1988, with the exception of 1997 (Table 7.2). In 1997, 10 deaths occurred, which included all patients diagnosed after death and those who died prior to completing treatment for tuberculosis. Tuberculosis may therefore not have been the actual cause of death. Tuberculosis is an opportunistic disease and is found many times in patients with other end stage conditions. Therefore, it is uncertain sometimes what the actual cause of death was. Tuberculosis does play a role. Tuberculosis morbidity rates continued to decline since 1984 to the lowest ever (1.2) in 2003 (Figure 7.1). Then in 2004 there was a 14% increase of cases and 17% increase

West Virginia Tuberculosis Mortality, 1984 - 2006

Year of Report	# of TB Cases	# of TB Deaths	State Rates*
1984	133	12	**6.8**
1985	108	19	**5.6**
1986	124	19	**6.5**
1987	99	16	**5.2**
1988	68	8	**3.6**
1989	77	5	**4.1**
1990	87	6	**4.9**
1991	64	6	**3.6**
1992	92	<5	**5.1**
1993	75	6	**4.1**
1994	80	<5	**4.4**
1995	71	5	**3.9**
1996	57	<5	**3.1**
1997	54	10	**3.0**
1998	42	<5	**2.3**
1999	41	5	**2.3**
2000	33	7	**1.8**
2001	32	<5	**1.8**
2002	30	<5	**1.7**
2003	21	<5	**1.2**
2004	24	<5	**1.3**
2005	28	<5	**1.6**
2006	22	<5	**1.2**

Table 7.2

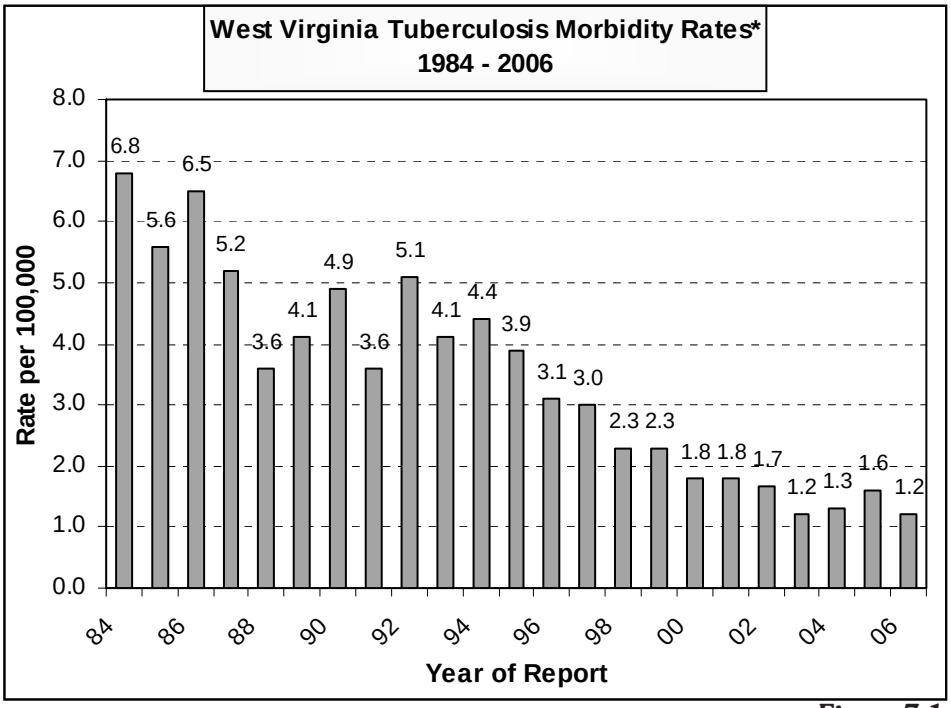


Figure 7.1

*Rates are per 100,000 residents and are based on the 2000 population.
WV's TB mortality rate in 2003 was 0.1.

West Virginia Tuberculosis Cases by Age Group and Year of Report, 2002 - 2005

Figure 7.2 displays tuberculosis cases from 2001 through 2005 by age group. Cases over the age of 65 had been the majority of cases for several years - people exposed prior to the discovery of Isoniazid; this population is increasing in age. In the last five years the percentages in this group were down in the 30 to 40% range, however, in 2005 this group was back to the majority of 54% of cases. Only one of the caseswas a nursing home resident. The number of cases in the 45-64 age group had been gradually increasing each year from 25% in 2001 to 50% in 2004; in 2005 the percentage of cases in this group dropped back to 25%. There has been only one case reported in the 0-14 age group in the last five years.

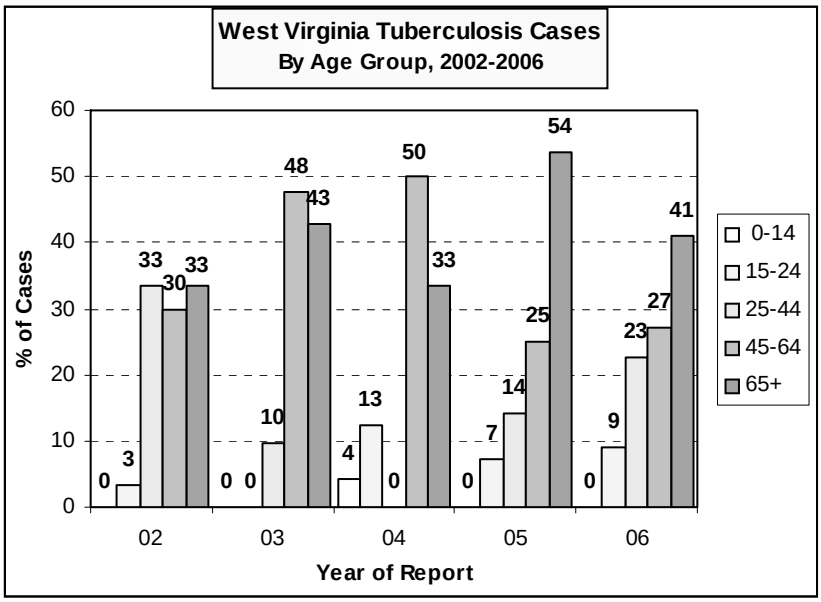


Figure 7.2

Figure 7.3 displays the incidence rate of tuberculosis in West Virginia compared to the United States. In the mid-1900's, West Virginia's case rate of tuberculosis per 100,000 population was greater than the national rate of reported cases. In 1974, West Virginia's rate dropped below the national rate, and the state has maintained a case rate of less than half of the national rate since 1990. In 2006, the same comparison of rates continued, with 1.2 for West Virginia and 4.6 for the United States.

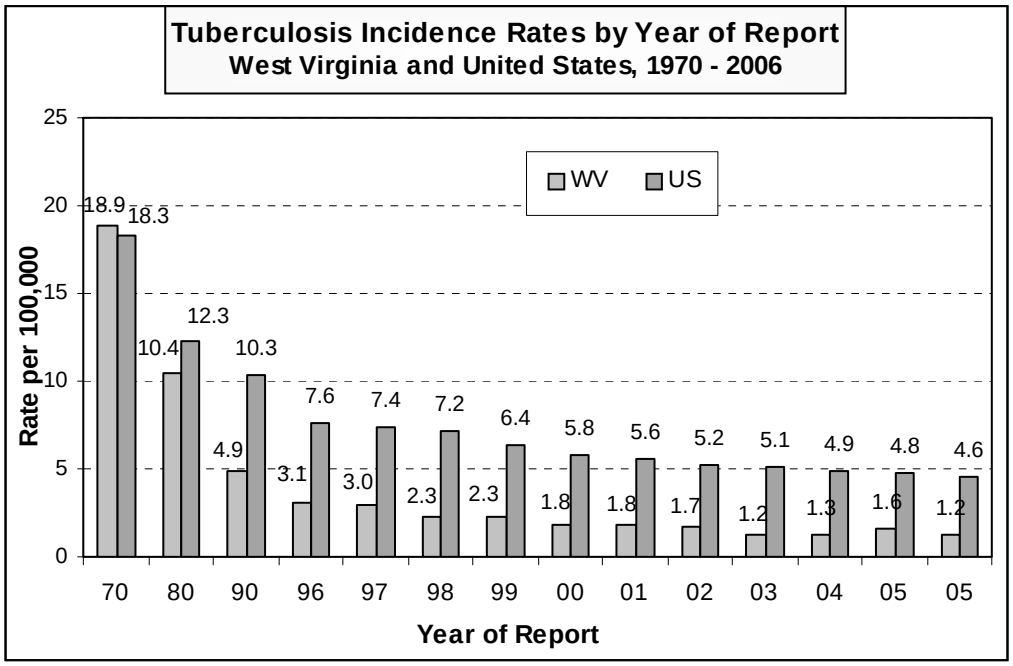


Figure 7.3

West Virginia Tuberculosis Cases by Gender, Race, and Year of Report, 2002-2006

TB cases are usually higher among men than among women, as is demonstrated in Figure 7.4. In 2006, males dominated the cases more than four to one (male 82% to female 18%). In 2005 males were maintaining 2:1 ratio to females.

TB cases by race from 2002-2006 are displayed in Figure 7.5. West Virginia's population is predominantly white, as are the cases of TB. The percentage of blacks with TB declined from 13% in 2002 to 5% in 2006. Blacks accounted for 5% of the cases reported in 2006, which is congruent with 3% of West Virginia's population. The percentage of blacks in 2006 was 4.6%, representing one case. Low incidence makes percentage seem more dramatic.The percent of cases in the "Other" category increased from 4% in 2004 to 14 in 2005 while declined to 9% in 2006, reflecting the increase of reported cases in foreign born.

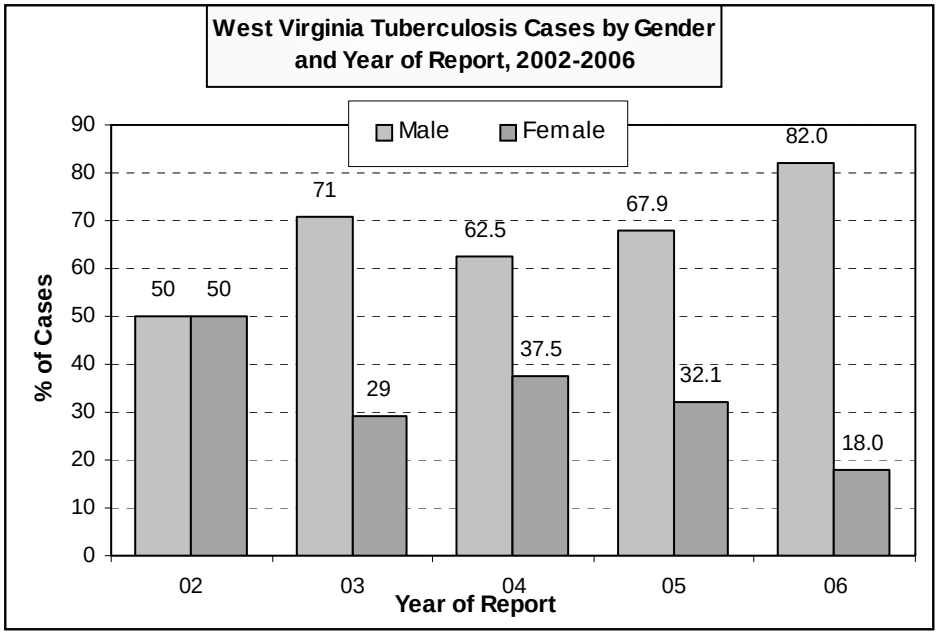


Figure 7.4

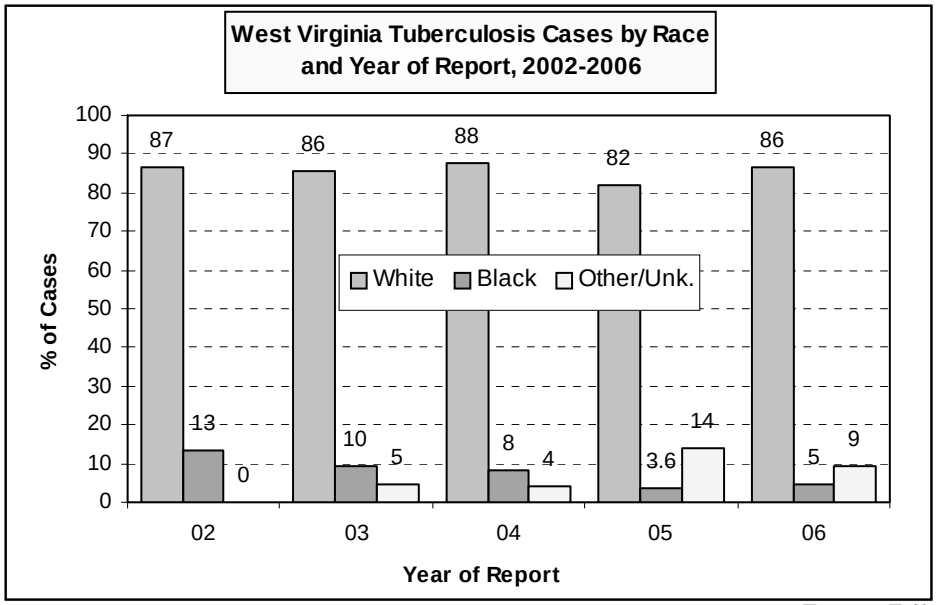


Figure 7.5

SECTION 3:

HIV/AIDS Treatment and Care

Ryan White HIV/AIDS Care Act

Summary of HIV/AIDS Treatment and Care in West Virginia

Summary

- As of December 31, 2006, there was a cumulative total of 1,455 AIDS cases reported in the state.
- 60 new AIDS cases were reported in West Virginia in 2006. This represents a 13% decline from the previous year.
- The AIDS case rate in 2006 was 40 per 100,000 for blacks while 2 per 100,000 for whites. Decrease in AIDS case rates were noted for both black males and black females over the last five years.
- 99 clients received Ryan White Title I or accessed funded services in 2006.
- 634 clients received Ryan White Part B Program or accessed funded services in 2006.
- 434 clients received Ryan White Title III or accessed funded services in 2006.
- In December 2006, 306..... individuals were enrolled in West Virginia's ADAP (AIDS Drug Assistance Program).
- The demographics of Ryan White Title II clients and ADAP enrollees are similar to the observed demographics of all persons listed as living in West Virginia with HIV/AIDS at the end of 2006.

Impact of AIDS in West Virginia

This section focuses on information that pertains specifically to AIDS in West Virginia. AIDS cases represent HIV-infected individuals who have reached a later, more serious, stage of disease and who meet the case definition for an AIDS diagnosis. This case definition includes confirmation of HIV infection along with CD4 T-lymphocyte count <200 or <14% or HIV infection with the presence of one of 26 clinical conditions or AIDS indicator diseases called opportunistic infections (OI) that compromises the immune system. The date of AIDS report represents the date that an individual is reported as an AIDS case. Individuals are usually reported with an HIV diagnosis and then later with an AIDS diagnosis. However, some individuals are reported with both an HIV diagnosis and an AIDS diagnosis at the same time.

Monitoring changes in AIDS cases helps provide a valuable measure of the continuing impact of treatment as well as describing those who may not have access to care. Increases in reports may indicate that more individuals are not receiving effective treatments or that current treatments are not as effective as they were earlier. Close attention should be paid to the demographic changes in AIDS cases, especially by agencies that provide care services for clients.

As of December 31, 2006, a total of 1,455 cases of AIDS had been reported in the state since 1984 with West Virginia as residence at the time of diagnosis. In 2006, 60 new AIDS cases were

West Virginia AIDS Cases Comparison
by Year of Report, Race and Gender, 2002-2006

Race	Males										Females										Total	
	2002		2003		2004		2005		2006		2002		2003		2004		2005		2006			
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
White	52	87	47	78	45	76	49	84	28	68	7	41	5	29	9	45	7	58	8	42	257	71
Black	7	12	12	20	10	17	8	14	12	29	10	59	11	65	9	45	4	33	11	58	94	26
Other/Unk.	1	2	1	2	4	7	1	2	1	2	0	0	1	6	2	10	1	8	0	0	12	3
Total	**60**	**100**	**60**	**100**	**59**	**100**	**58**	**100**	**41**	**100**	**17**	**100**	**17**	**100**	**20**	**100**	**12**	**100**	**19**	**100**	**363**	**100**

Table 8.1

West Virginia AIDS Cases Comparison
by Year of Report and Race, 2002-2006

Race	2002		2003		2004		2005		2006		Total		Cumulative through 2004*	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
White	59	77	52	68	54	68	56	80	36	60	**257**	**71**	**1145**	**79**
Black	17	22	23	30	19	24	12	17	23	38	**94**	**26**	**290**	**20**
Other/Unk.	1	1	2	3	6	8	2	3	1	2	**12**	**3**	**20**	**1**
Total	**77**	**100**	**77**	**100**	**79**	**100**	**70**	**100**	**60**	**100**	**363**	**100**	**1455**	**100**

* AIDS data includes April 1984 through December 31, 2006

Table 8.2

reported. About 40% of these new AIDS cases represented new individuals reported (HIV and AIDS reported concurrently); the remaining 60% represented individuals who had been previously reported with HIV infection, but who then subsequently had an AIDS diagnosis in 2006. The 60 reported cases for 2006 represented a 13% decline in AIDS reports from previous year.

The reasons for the decline in AIDS reported cases are due to several factors. These factors include variations in access to medical care, changes in HIV treatment effectiveness over time, the expected progression of disease for the high number of individuals infected with HIV in the mid-1990s, and enhanced surveillance efforts to capture timely case report information. It is important to remember that reporting delays can cause changes in the report totals for recent years. In West Virginia, diagnosed cases are sometimes not reported to the HIV/AIDS/STD Program in a timely manner. For instance, for cases reported between 1990 and 1994, 60 percent were reported within three months of diagnosis, and 75 percent were reported within 12 months of diagnosis. By comparison, CDC reports nationally that 50 percent of cases are reported to CDC within three months and 80 percent within one year.

Tables 8.1 display the AIDS report cases and percentages for the last five years. Changes in these numbers may indicate changes in anticipated care need for certain groups. In 2006, black females represented 58% of AIDS cases, black males represented 29% of cases, and white females represented 42% of cases. The cases for AIDS among black males and females were increased in 2006 when compared to previous years.

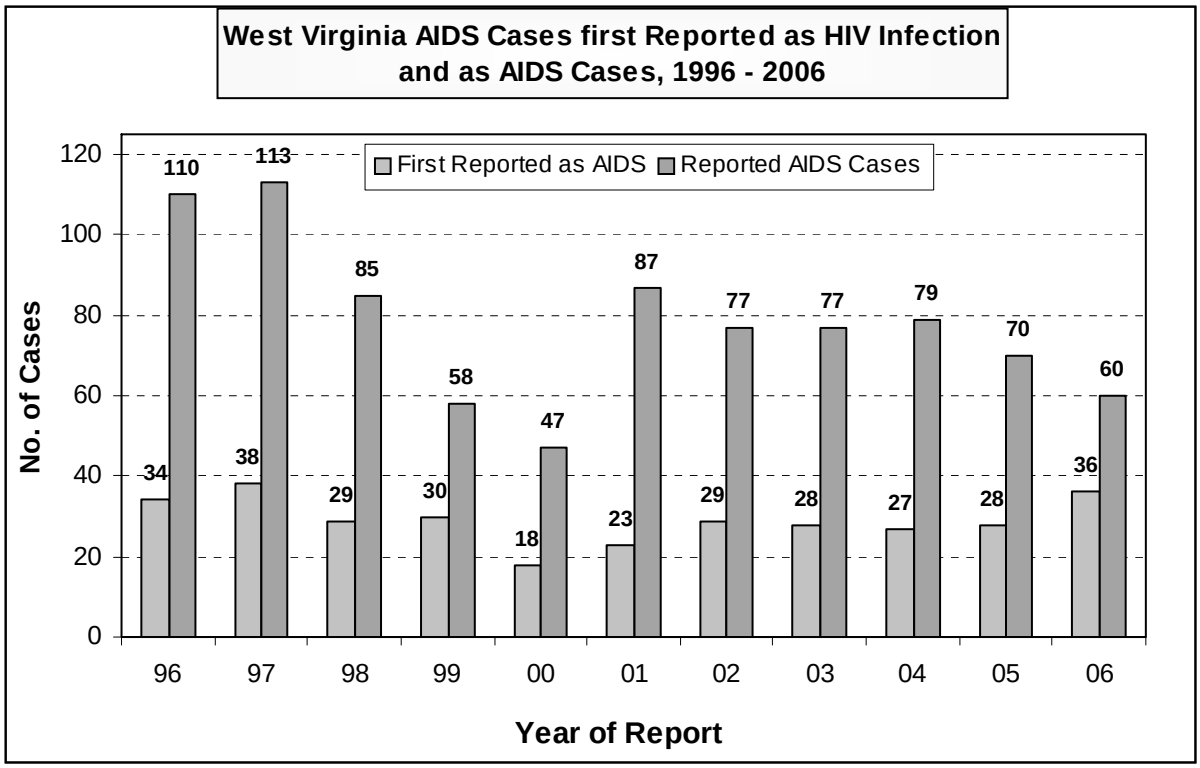


Figure 8.1

Ryan White HIV/AIDS Care Act and Other Services

Ryan White HIV/AIDS Care Act Data

Overview: In 1990, Congress enacted the Ryan White CARE Act to provide funding for states, territories and eligible metropolitan areas (EMAs) to offer primary medical care and support services for persons livings with HIV disease who lack health insurance and financial resources for their care. Congress reauthorized the Ryan White CARE Act in 1996 and in 2000 to support Titles I, II, and III, all of which are part of the CARE Act. Title programs support varies from state to state depending on program requirements and mandates. Data are available about services provided.

Population: All persons who received Ryan White Care Act funded services.

Strengths: One of the few aggregate sources of care and service information for HIV-infected persons and persons affected by HIV (family members of HIV infected person) that covers the entire state.

Limitations: Current information is based on the summation of annual Care Act Data Reports (CADR) that each consortia or provider receiving funding is required to complete. Because persons can be served by more the one provider or service organization, there is duplication within the summary data. Currently only Title II funded agencies are required to report service provided to the state; Titles III report directly to HRSA. Thus, the care and service information is incomplete at the state level. In order to better monitor access to Ryan White services and assist projects with required reporting, a computer software program, CAREWare, has been recently provided to each consortium by HRSA. The CAREWare collects and stores data for completion of the annual Care Act Data Report (CADR). The system will be used to a larger capacity in the uncoming years in order to utilize its full potential. The CADR used in this section were complied using other computer programs.

Ryan White HIV/AIDS CARE

This section focuses on information that pertains to Health Resources and Services Administration (HRSA) HIV/AIDS care planning groups. The purpose of Ryan White Title II funding is to improve the quality, availability, and organization of health care and support services for individuals and families with, or affected by, HIV disease in each state or territory. The state administers The Ryan White Title II program and provides funding for services to care consortia and other local service providers. Most of the Ryan White Title II-funded services in West Virginia are administered and provided through local consortia.

The comprehensive plan for West Virginia Ryan White Comprehensive AIDS Resources Emergency (CARE) Act supports three programs funded under Title II. The programs are designed to enhance access to a comprehensive continuum of quality HIV healthcare for low income individuals and families living with HIV. The programs to be funded in West Virginia with funds from Ryan White Title II are:

- **HIV Care Consortium**

- **Provision Treatments AIDS Drug Assistance Program (ADAP)**
- **Health - Insurance Program**

HIV Care Consortium

HIV Care Consortium includes comprehensive outpatient health and support services for individuals living with HIV, including early intervention services; essential health services such as management, medical, nursing, substance abuse, mental health, dental care, diagnostics, treatment monitoring, prophylaxis, treatment for opportunistic infections; treatment education within the context of health care delivery, medical follow-up, developmental, rehabilitation, home health care, hospice care, transportation, attendant, home-maker, day or respite care, benefits advocacy; advocacy provided through public and non-profit private entities; nutrition services; housing referrals; child welfare and family services (including foster care and adoption services).

The statewide consortium provides case management for all eligible HIV infected West Virginia residents. The case managers, located across the state, provide case management, referrals, education, advocacy and act as access points in applying for financial assistance. The home office of the Consortium is in Wheeling. The Consortium case managers rely on access points across the state that refer clients for case management or that request emergency financial assistance for clients in the agency's caseload. Financial assistance is divided into two general areas: health related and support related. Clients may access up to $1,000 in financial assistance during the State's fiscal year July 1 - June 30. Health related services include ambulatory / outpatient medical care, dental care, vision treatment, counseling, home health care and limited rehabilitative care. Support related services include client advocacy, day or respite care, home delivered meals, nutritional supplements, housing and utilities, adoption / foster care assistance, health education / risk reduction services, permanency planning, transportation, outreach and food vouchers.

The HIV Care Consortium program, which provides case management and support for health and support related services ranked as the second prioritized program. The top five service related priorities were:

1. Medication
2. Transportation
3. Dental Services
4. Food vouchers
5. Utility assistance

AIDS Drug Assistance Program (ADAP)

Provision Treatments AIDS Drug Assistance Program (ADAP) includes therapeutics to treat HIV disease or to prevent the serious deterioration of health arising from HIV disease in eligible individuals, including measures for the prevention and the treatment of opportunistic infections.

Since 1987, Congress has appropriated funds to assist states in providing AIDS patients antiretroviral therapy (ART) approved by the Federal Drug Administration (FDA). With the initial passage of the Ryan White CARE Act in 1990, the assistance programs for ART were incorporated into Title II and became commonly known as ADAP. ADAP now provides FDA-approved HIV-related prescription drugs to under-insured and uninsured persons living with HIV/AIDS. For many people with HIV, access to ADAP serves as a gateway to a broad range of health care and supportive services plus other sources of coverage, including Medicaid, Medicare and private insurance.

The WV ADAP provides vital life saving drugs to eligible persons with HIV infection. The program's formulary includes all of the FDA approved anti-retroviral therapies, thus ensuring full access to HIV/AIDS patients antiretroviral therapy (HAART) for the program's participants.

West Virginia ADAP serves eligible persons who do not have current Medicaid coverage, eligible persons who do not have full insurance coverage for pharmaceuticals and eligible persons who are still in the work force. West Virginia has administered this program through a contract with Medicaid and the formulary's drugs are available to all eligible participants at any West Virginia pharmacy that the participant chooses. Approximately 5,700 prescriptions are dispensed annually by the program to more than 190 enrolled ADAP participants.

ADAP participants must use the program as a payer of last resort make it is required that insurance, Medicaid, VA benefits and other third party payers to be contacted, in part or in full, before payment by the ADAP. Applicants must have determined to be ineligible for a Medicaid card when applying for ADAP at their local county Department of Health and Human Resources office.

West Virginia ADAP (Provisions of Treatments) ranks as the highest priority with all sources of prioritizing. The lack of adequate funding, raising costs of the formulary's drugs and the limited formulary of 32 drugs, presents major concerns for staying the same in the program. The top five priorities for the program include the following:

1. Maintain the current 32 drugs formulary without restriction to access
2. Add the FDA approved anti-retrovirals immediately after approval
3. Add Public Health Service recommended drugs for treatment of opportunistic infections
4. Add treatments for Hepatitis C to the ADAP formulary
5. Add mental health therapies to the ADAP formulary

Applications for ADAP can be obtained at any of the County Department, from HIV Care Consortium case managers and from HIV/AIDS health and social service providers. The following drugs are on the formulary for the West Virginia ADAP:

TRADE NAME	GENERIC NAME
1. AZT, Retrovir	Zidovudine
2. Bactrim, or equivalent	Cotrimoxazole
3. Dapsone	Dapsone
4. DDC, Hivid	Zalcitabine
5. DDI, Videx	Didanosine
6. Epivir, 3TC	Lamivudine
7. Mycelex	Clotrimazole
8. Mycostatin	Nystatin
9. Nebupent, Pentam	Pentamidine
10. Wellcovorin	Leucovorin
11. Zerit, D4T	Stavudine
12. Norvir	Ritonavir
13. Crixivan	Indinavir
14. Viramune	Nevirapine
15. Viracept	Nelfinavir
16. Rescriptor	Delavirdine
17. Combivir	Lamivudine/Zidovudine
18. Fortovase	Saquinavir
19. Sustiva	Efavirenz
20. Agenerase	Amprenavir
21. Ziagen	Abacavir
22. Zithromax	Azithromycin
23. Kaletra	Lopinavir
24. Trizivir	Lamivudine/Zidovudine/Abacavir
25. Zovirax	Acyclovir
26. Diflucan	Fluconazole
27. Viread	Tenofovir
28. Emtriva	Emtricitabine
29. Reyataz	Atazanavir
30. Lexiva	Fosamprenavir Calcium
31. Epzicom	Lamivudine/Abacavir
32. Truvada	Tenofovir/Emtricitabine
33. Invirase	Saquinavir

The six drugs for the treatment of opportunistic infections include:

1. Mycelex **2.** Mycostatin **3.** Leucovorin **4.** Zithromax **5.** Acyclovir **6.** Diflucan

The three drugs for prophylaxis of PCP are:

1. Bactrim **2.** Dapsone **3.** Nebupent

The WV formulary provides a very limited number of physicians treating West Virginia's HIV infected residents. The formulary offers few or no options for the treatment of opportunistic infections such as Pneumocystitis Carinii Pneumonia(PCP), Cytomegalovirus Retinitis, Mycobacterium Avium Complex, Toxoplasmosis, and Cryptococcal Meningitis. These limited choices are becoming greater obstacles in the treatment of HIV infected West Virginians as more residents are experiencing drug failure with the anti-retrovirals provided on the WV formulary. The current formulary forces persons to progress in the disease spectrum, and to experience hospitalizations to meet Medicaid spend downs.

The WV ADAP provides a formulary of 32 therapies for eligible West Virginians with HIV infection. This program administered by WV Medicaid, will provide approximately 5,700 prescriptions to a projected 250 persons during FY 2002. We expect these numbers to expand to 6,000 prescriptions for 278 persons in FY 2003.

In September 1998, while the WV ADAP moved to point of sale, and also started electronic billing, restrictions that limited access to the program. The limitations included a reduction in eligibility guidelines from 300% Federal Poverty Level (FPL) to 250% FPL. In addition, participants were limited to three anti-retrovirals per month; only one could be a protease inhibitor. On July 1, 2000, they lifted the limitation on anti-retrovirals to bring the program into compliance with PHS guidelines. The reduction in FPL remained in effect and continues to be in effect now. The 250% FPL is the only restriction on access to the WV ADAP that was in effect on January 1, 2000 and that is still in effect.

West Virginia ADAP is currently reviewing cost savings strategies for 2004. The Program had a waiting list for much of 2005. To make the existing resources more efficient, the program is currently converting the operational model from the current "reimbursement and rebate model" to a "direct purchase/centralized pharmacy model." These strategies are being considered only for the maintenance of the current 32 drug formulary. New therapies cannot be added without ADAP Supplemental Funding.

Health - Insurance Program

Health - Insurance Program includes health insurance or medical benefits provided under a health insurance program, including risk pools.

Insurance Continuation Program

The Insurance Continuation Program, the lowest budgeted Title II program, ranked as the third prioritized program. The program's top priorities include:

- Maintain current coverage of premiums without cutting services

- Expand services to include payments for deductibles
- Create a risk insurance pool

The program is designed to help eligible persons with HIV infection maintain their existing health insurance when they might otherwise lose their coverage because of financial stress, a reduction of work hours, an unpaid medical leave or a termination of their employment. This program does not pay for Medicare Supplemental insurance nor Medicare premiums. Insurance coverage, if eligible for assistance, must include prescription coverage that meets or exceeds the WV ADAP formulary. Premiums for the participant's insurance coverage are analyzed quarterly to ensure that costs associated with providing anti-retroviral therapies do not exceed current ADAP discount pricing.

Ryan White Title II HIV Care Services

In West Virginia, prevention and care programs frequently cross paths. We contract both CDC funding for HIV prevention activities and HRSA HIV Care funding for Title II programs through WV AIDS/STD Program. Volunteers who serve on the State AIDS Advisory Council represent both care and support related programs plus HIV prevention programs. Both the prevention and care programs have representation from care and prevention in each of their respective planning groups.

The Ryan White Title II HIV Care program maintains contact and program coordination with other CARE Act Titles in West Virginia and CARE Act funded sites outside the state that serve people living with HIV/AIDS (PLWHA) in West Virginia. During 2003, Title II coordination with sites outside West Virginia included referrals to the University of Pittsburgh Medical Center (UPMC) and the University of Virginia (UVA). Both ADAP services and Case Management/Consortium services to West Virginia residents living with HIV/AIDS who seek care out of state are provided by the Ryan White Title II HIVE Care program.

The Ryan White Title III Early Intervention Services clinic at Charleston Area Medical Center (CAMC) serves PLWHA sixteen counties in the southern region of West Virginia. Besides providing ADAP services, The Ryan White Title II programs collaborate with CAMC on referrals, case management and program planning.

West Virginia Ryan White Title II programs and the HIV Care Consortium collaborated with the Robert C. Byrd Health Sciences Center at West Virginia University (WVU) in planning healthcare delivery services for twenty-five counties in north, eastern, and central West Virginia. This institution receives both a Title III Planning Grant and a Capacity Building Grant. It operates an HIV clinic that collaborates with Title II for ADAP services and Consortium case management.

The HIV Care Consortium provides extensive education and support to the Antonio Avenue Clinic in southern West Virginia. It funded this clinic with a Ryan White Title III Planning Grant. And have collaborated with the regional case manager and the HIV Care Coordinator for service delivery planning.

Ryan White Title II programs collaborate with the Shenandoah Valley Medical System in the

eastern panhandle of West Virginia. The healthcare clinic, the recipient of a Ryan White Title III Capacity Building Grant, has collaborated with The Ryan White Title II programs for program planning.

In the eastern panhandle of West Virginia, two counties have been designated as part of the Washington, D.C. Eligible Metropolitan Area (EMA). The Ryan White Title II Programs collaborate with Title I for program planning, ADAP services, Insurance Continuation Program services and referrals.

The Ryan White Title II HIV Care Consortium ensures that The Ryan White Title II programs are the payers of last resort for HIV healthcare services. It assess all clients for Medicaid, Medicare, Veterans and Maternal and Child Health eligibility. The Bureau of Medical Services (BMS) ensures that ADAP participants are not eligible for Medicaid.

HIV Care Consortium identifies the gaps and barriers in the current system of care for PLWHA and development of non-replicative strategies that meet the needs. Through the establishment of working relationships that simplify communication, coordinate planning and the promotion of maximum access to services for PLWHA, the Consortium strives to enhance the quality of life for HIV infected residents of West Virginia

Priority Populations:

The Ryan White Title II Planning Group has identified populations that are targeted for additional outreach. They include the following:

Persons who know that they are infected but who are not in care:

The HIV Care Consortium provides additional outreach to key points of access to promote easy access for persons to enter care. The West Virginia HIV/AIDS/STD Program surveillance staffs always collaborates with the case managers to ensure that newly diagnosed persons are informed about the advantage of early intervention.

Minorities:

Each of The Ryan White Title II programs initiates additional outreach to minorities living with HIV/AIDS. The projected increase in minorities to be served during the plan's period is 15 percent.

Rural and Historically Under-served Populations:

The HIV Care Consortium was empowered with additional flexibility in their decision making to ensure that PLWHA who are faced with rural issues, overwhelming stigma, or traditional lack of access to healthcare are provided reasonable and flexible options for receiving HIV primary care and support services.

The Ryan White Title II programs conducted the most comprehensive needs assessment ever attempted in the WV Title II's history. AIDS Housing of Washington conducted the comprehensive needs assessment with the WV Ryan White Title II programs, the West Virginia Coalition for People with HIV/AIDS, The Ryan White Title I jurisdictional agents, and the AIDS Network of the tri-state. The final recommendations of the year-long activity, were presented in December 2002.

The State used the formal Needs Assessment produced by AIDS Housing and the Ryan White Title II Program Advisory Committee for determining the needs of PLWHA. AIDS Housing used 299 surveys completed by PLWHA and a series of eight focus groups of PLWHA in formulating their conclusions/recommendations. Responses were analyzed from specific regions to help with regional planning and the planning needs of the CAMC Title III EIS clinic and the Planning Grant activities at West Virginia University.

West Virginia is to concentrating on strategies for identifying individuals who know their HIV status but are not in care. The state has used several key prevention and care staff members to assess the needs of those who are infected but not seeking care. The needs assessment conducted among those who know their status, but are not in care is not as well documented and is not totally representative of the population as a whole. The state has determined that stigma, transportation, side effects of HAART and mental health/substance abuse issues are the greatest barriers for enlisting people who know their status to enter care.

The needs expressed by those not in care were frequently the same needs that existed before an HIV+ diagnosis, but aggravated due to the diagnosis. These needs included food, housing, transportation and dental care. The case managers maintain limited contact with PLWHA who know their status and have subsequently asked about care and support services, though it is difficult in identifying those individuals who know their status and have migrated to West Virginia, but are not yet identified at key points of entry, nor are in primary care.

Historically, under-served communities that experience a disparity in access and services in West Virginia include both persons who are hesitant to enter or maintain care and persons who are multiple diagnosed and face major barriers in maintaining a continuum of care. MSM substance abusers, heterosexual, black females, people in regional jails and mentally/physically challenged persons, face major obstacles concerning stigmas associated with an HIV/AIDS diagnosis. In addition, literacy problems present added barriers for those who provide primary care and support services.

MSM substance abusers, most frequently alcohol abusers, have a documented lack of commitment to a continuum of care. MSM are predominantly characterized as unwilling to utilize substance abuse treatment. The population has a history of missed primary care appointments and a lack of adherence to HAART that contributes to sporadic primary care. Close collaboration between Title II and prevention is being coordinated to address the MSM substance abuser population due to high-risk behavior and the increased risk for secondary infections.

Based on needs assessments and case managers feedback, heterosexual black females are frequently non-adherent to primary care and HAART. Women frequently meet the least eligibility requirements for maintaining a Medical card, but do not follow through with the continuum care due to non-supportive relationships, poverty, lack of education, transportation, substance abuse, and cultural stigmas.

West Virginians incarcerated in the regional jail system vary in need based on their geographic location in the state. Due to inconsistent policies for treating PLWHA and varying lengths of incarceration, no one treats incarcerated PLWHA who enters the regional jail system regularly. In addition,

discharge planning for PLWHA is often sporadic and lacks referrals for case management and primary care.

Next to funding for HIV care and service delivery, the greatest need by all populations statewide is the provision of a continuum of healthcare. West Virginia has suffered statewide from a malpractice insurance crisis. Physicians, particularly specialists, have been leaving the state due to high insurance rates and a lack of available insurance carriers. This crisis has been felt immediately in HIV healthcare.

Patients are traveling as much as 75 miles to see specialists. In addition, the premiums for clients enrolled in the Insurance Continuation Program have increased significantly, while the coverage has decreased. Two physicians, who were the sole providers of HIV care in their cities, left West Virginia in 2002. Both cited the high cost of malpractice insurance as primary factors that influenced their decisions to leave.

Number of Clients Served by The Ryan White Care Act Title I, II, and III 2006

Services	RW Title I		RW Title II	RW Title III			
				CAMC		WVU*	
	No. of Clients	No. of Services	No. of Clients	No. of Clients	No. of Services	No. of Clients	No. of Services
Ambulatory/outpatient medical services	15	30		212	842	221	806
Mental health services	6	24	2	34	117	118	257
Oral health services	15	49	42	37	69	20	26
Substance abuse services: outpatient	1	4					
Rehabilitation services							
Home health: para-professional care							
Home health: professional care							
Case management services	99	283	634				
Child care services						130	239
Client advocacy							
Early intervention services for Titles I and II			53				
Emergency financial assistance	88		579				
Food bank/home-delivered meals			40				
Health education/risk reduction	15		207			218	
Legal services							
Nutritional counseling				13		136	
Outreach services	14						
Permanency planning							
Psycho-social support services				140			
Referral for health care/supportive services	62		301			67	
Referral to clinical research			11			5	
Residentials or in-home hospice care							
Transportation services	37		282				
Treatment adherence counseling	26		317	98		50	
Other services	13					115	
Total	**391**	**390**	**2468**	**534**	**1028**	**1080**	**1328**

* Data are combined numbers from Morgantown and Martinsburg sites.

Table 8.3

The continuing malpractice crisis in West Virginia has resulted in speciality clinics being closed at one of the state's major medical center. The crisis has also affected The Ryan White Title II Insurance Continuation Program as insurance premiums, deductibles and co-pays for the insured have all experienced increases.

Table 8.3 displays West Virginia Ryan White HIV CARE Act Titles I, II, and III funding that provided vital services for PLWHA. The RW Title II coordinated with other Title II sites outside West Virginia including referrals to the University of Pittsburgh Medical Center (UPMC) and the University of Virginia (UVA). Both ADAP services and case Management/Consortium services were provided to West Virginia PLWHA who seek care out of state. In addition to providing ADAP services, The Ryan White Title II programs collaborate with CAMC and WVU on referrals, case management and program planning. This table also shows services the Ryan White Title III Early Intervention Services clinic at Charleston Area Medical Center (CAMC) that serves PLWHA for nineteen counties in the southern region of West Virginia and West Virginia University (WVU) that serves PLWHA for 36 counties in northern region of the state.

Table 8.4 shows the Ryan White HIV CARE Act Titles I, II, and III funding that serviced people living with HIV/AIDS (PLWHA) by age group, gender and race.

Number of Clients Served by Age Group, Gender, and Race by The Ryan White Care Act Title I, II, and III, 2006

Characteristic	No. of Clients Receiving Service			
	RW Title I	RW Title II	RW Title III	
			CAMC	WVU*
Age Group				
Under 2	0	0	0	0
2-12	0	5	0	0
13-24	3	20	8	14
25-44	36	323	122	113
45-64	57	277	79	89
65 and older	3	9	4	4
Total	**99**	**634**	**213**	**220**
Gender				
Male	77	487	167	165
Female	22	146	46	54
Total	**99**	**634^**	**213**	**220^**
Race				
White	48	504	164	169
Black	47	115	44	40
Other/Unknown	4	15	5	11
Total	**99**	**634**	**213**	**220**

^ One Transgender case.

* Data are combined numbers from Morgantown and Martinsburg sites.

Table 8.4

Table 8.5 displays the Ryan White HIV CARE Act Titles I, II, and III funding comparison that serviced people living with HIV/AIDS (PLWHA) by household income, housing/living arrangements, medical insurance, HIV/AIDS status, and clients' vital/enrollment status.

Number of Clients Served by Household Income, Housing, Insurance, HIV/AIDS Status, and Enrollment Status by the Ryan White Care Act Title I, II, and III, 2006

Characteristic	No. of Clients Receiving Service			
	RW Title I	RW Title II	RW Title III	
			CAMC	WVU*
Household Income				
Equal to or Below the Federal Poverty Line	46	203	146	105
101-200% of Federal Poverty Line	39	317	63	52
201-300% of Federal Poverty Line	14	101	5	19
>300% of Federal Poverty Line	0	11	0	10
Unk.	0	2	0	34
Total	**99**	**634**	**214**	**220**
Housing/Living Arrangements				
Permanently Housed	83	564	201	211
Non-permanently Housed	0	53	8	5
Institution	3	11	4	3
Other/Unknown	13	6	1	1
Total	**99**	**634**	**214**	**220**
Medical Insurance				
Private	13	51	11	55
Medicare	17	134	57	46
Medicaid	11	105	81	64
Other Public	40	84	5	6
No Insurance	14	186	60	49
Unk.	4	74	0	0
Total	**99**	**634**	**214**	**220**
HIV/AIDS Status				
HIV Positive, Not AIDS	51	228	101	108
HIV Positive, AIDS Status unknown	20	58	0	13
CDC Defined AIDS	28	348	113	99
Unk.	0	0	0	0
Total	**99**	**634**	**214**	**220**
Clients' Vital/Enrollment Status				
Active, New to Program	5	90	41	40
Active, Client Continuing in Program	75	517	159	154
Deceased	3	22	2	5
Inactive	16	5	12	11
Unk.	0	0	0	0
Total	**99**	**634**	**214**	**220**

* Data are combined numbers from Morgantown and Martinsburg sites.

Table 8.5

Notes:

SECTION 4:

Sexually Transmitted Diseases Other than HIV/AIDS

Impact of Sexually Transmitted Diseases other than HIV/AIDS in WV STD Surveillance

Chlamydia case reporting

Overview: West Virginia law states that all cases of chlamydia infection must be reported as follows: One report shall be made to the local municipal health officer of the county in which the person lives; the second report shall be made to the state health department within one week of diagnosis. Laboratory confirmation of chlamydia cases takes place at a number of private labs. Most public health clinics send their samples to the West Virginia State Office of Laboratory Services (OLS). Results are returned to the provider, who reports them to the local health department. Infected patients are treated and encouraged to bring their partners in for treatment. Disease Intervention Specialists (DIS) follow up on all priority patients 12-24 years of age seen in family planning clinics and STD clinics. When a new case is diagnosed, the provider sends a morbidity report to the HIV/AIDS/STD Program at the Division of Surveillance and Disease Control (DSDC) where information on patient demographics and disease diagnosis is compiled for analysis and are transmitted weekly to CDC.

Population: All persons who meet the CDC surveillance case definition for chlamydial infection and who are reported to the DSDC (state health department).

Strengths: Well-established screening programs for young women attending public clinics provide relatively good data about the prevalence of disease in this subpopulation.

Limitations: Chlamydia is often asymptomatic in both males and females. It is also a major cause of pelvic inflammatory disease (PID) in females and, for this reason, the WV state health department recommends that all sexually active young women (age 24 and under) should be screened for chlamydia during any pelvic exam. It is also recommended that all pregnant women should be tested for chlamydia as part of standard prenatal care. There are no comparable screening programs for young men. For this reason, chlamydia case reports are always higher among females. Public clinics and health departments conduct such screening programs and report cases, causing the reported cases to be higher among young women who attend these clinics.

Gonorrhea case reporting

Overview: West Virginia law states that all cases of gonorrhea infection must be reported as follows: One report shall be made to the local municipal health officer of the county in which the person lives; the second report shall be made to the state health department within one week of diagnosis.* Laboratory confirmation of cases generally takes place at the local level and is reported directly to the local health department then to the state health department. Infected patients are treated and encouraged to bring their partners in for treatment. Disease Intervention Specialists (DIS) follow up on all priority patients 12-24 years of age seen in family planning clinics and STD clinics. When a new case is diagnosed, a morbidity report is sent in to the DSDC, where information on patient demographics and disease diagnosis is compiled for analysis and are transmitted weekly to CDC.

* Gonococcal Disease - Drug-resistant disease, Neonatal conjunctivitis, or Pelvic Inflammatory Disease reported within 24 hours, all other Gonococcal Disease reported with one week.

Population: All persons who meet the CDC surveillance case definition for gonorrhea infection and who are reported to the West Virginia Bureau for Public Health.

Strengths: Gonorrhea is often symptomatic in males and slightly less so in females. Females entering publicly-funded prenatal care, family planning, and STD clinics are screened for asymptomatic gonorrhea. Males are screened at STD clinics only. Since males are more likely to have symptoms that would bring them to the STD clinic, the gender bias in gonorrhea reporting is not as severe as that for chlamydia reporting. Required laboratory reporting may also reduce some private vs. public provider bias in reporting infection and may do a better job of reporting gonorrhea cases than private doctors.

Syphilis case reporting

Overview: West Virginia law states that all cases of syphlis must be reported as follows: One report shall be made to the local municipal health officer of the county in which the person lives; the second report shall be made to the state health department within one week of diagnosis, while primary, secondary, early latent, and congenital syphilis to be reported with 24 hours.

Limitations: Public clinics and local health departments screen for asymptomatic syphilis and should report within 24 hours. However, syphilis testing and case diagnosis require multiple stages and may take several days. Each individual with a reactive syphilis test must be investigated thoroughly to determine 1) if the person is infected and, if so, 2) if the infection is new or failed treatment of an old infection, and, if new, 3) the stage of the disease. This investigation, conducted by DIS, can take days or weeks. In some cases, the patient is treated for a probable infection before the investigation is complete. Contact tracing and partner notification are also initiated for all probable syphilis cases because often partner information can aid in diagnosing the stage of the infection. Laboratories are required to report certain positive test results to local health departments within 24 hours, speeding up this process by initiating investigations earlier. When a new case is diagnosed, a morbidity report is sent in to the HIV/AIDS/STD Program at the state health department where information on patient names, demographics, and disease diagnoses are compiled for analysis.

Population: All persons who meet the CDC surveillance case definition for syphilis infection and who are reported to the West Virginia Bureau for Public Health.

Strengths: Thorough contact tracing and partner notification activities greatly reduce bias in reporting by locating and reporting partners with asymptomatic infections that may not have been found otherwise. Due to the severity and comparative rarity of syphilis compared to other STDs, it is believed that syphilis reporting, even from private providers, is quite good. Data on primary and secondary syphilis cases is particularly good because diagnosis of these stages of syphilis requires documentation of specific physical symptoms. Because syphilis cases are reported to the DSDC by name, accidental duplicates in the database are unlikely.

Limitations: Many latent cases of syphilis are asymptomatic and hence are found only through screening. This may bias latent syphilis case reporting toward groups that receive syphilis screening (pregnant women, jail inmates, others). It is also slightly more difficult to distinguish between the various latent stages of syphilis (early latent, late latent, latent of unknown duration) than primary and secondary, so the stage may be mis-diagnosed in some cases.

West Virginia Sexually Transmitted Diseases 2002- 2006

When comparing the reported cases of chlamydia and gonorrhea, and the rates per 100,000 population by race for the period 2002 to 2006, the following statements can be used in developing the STD Prevention Comprehensive Plan:

- The rates of chlamydia were disproportionately higher than the rates of gonorrhea among whites.
- Blacks were equally affected by both diseases but experienced disproportionate higher rates than the white over the past six years.
- Other and unknown race were also disproportionately affected by gonorrhea and chlamydia.
- Youth 15-19 years old experienced gonorrhea over the last five years at rates which were four times higher than the entire population (Table 9.3). Rates of chlamydia among youth were approximately five times the general populace rate. Furthermore, about 35% (1,015/2,885) of all reported cases of chlamydia and over 22% (210/939) of gonorrhea were among the 15-19 year old age group.

West Virginia Chlamydia Cases and Rates* by Race and Year of Report, 2002 - 2006

Race	Population	2002		2003		2003		2005		2006	
		#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
White	**1,718,777**	1,638	95	1,723	100	1,864	108	2,018	117	1,963	114
Black	**57,232**	426	744	452	790	485	847	549	959	549	959
Other	**32,335**	31	96	29	90	37	114	46	142	48	148
Unknown	-	384	-	376	-	375	-	332	-	325	-
Total	**1,808,344**	**2,479**	**137**	**2,580**	**143**	**2,761**	**153**	**2,945**	**163**	**2,885**	**160**

Table 9.1

West Virginia Gonorrhea Cases and Rates* by Race and Year of Report, 2002 - 2006

Race	Population	2002		2003		2003		2005		2006	
		#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
White	**1,718,777**	400	23	370	22	445	26	399	23	433	25
Black	**57,232**	439	767	352	615	317	554	283	494	396	692
Other	**32,335**	5	15	7	22	8	25	14	43	12	37
Unknown	-	136	-	112	-	122	-	75	-	98	-
Total	**1,808,344**	**980**	**54**	**841**	**47**	**892**	**49**	**771**	**43**	**939**	**52**

Table 9.2

West Virginia Chlamydia and Gonorrhea Cases and Rates* Among 15-19 Age Group by Year of Report, 2001 - 2006

Disease	Population	2002		2003		2004		2005		2006	
		#	Rate	#	Rate	#	Rate	#	Rate	#	Rate
Chlamydia	**125,578**	984	784	931	741	1,043	831	1,049	835	1,015	808
Gonorrhea		271	216	177	141	215	171	166	132	210	167

Table 9.3

* Rate are per 100,000 residents and are based on the 2000 population.

West Virginia Chlamydia and Gonorrhea Cases, 1987-2006

Figure 9.1 displays Chlamydia reported cases from 1987 through 2006. In 2006, West Virginia experienced 2% increase in reported cases compared to the previous year. Chlamydia first become reportable in West Virginia by legislative rule in 1992. At that time, most screening was being done in private clinics because no funding was available through public health. Congress passed the "Infertility Bill" in 1993 which made funding available for demonstration projects throughout the country. Region 3, which includes West Virginia, was the second state to participate and does so through a regional committee made up of STD, Family Planning, and Laboratory Directors, as well as several clinicians. West Virginia began public screening of women in 1994 which led to an increase in reported cases (Figure 9.1). The project was so successful that 1995 showed decline in reported cases. In 1997, West Virginia switched to Gen-Probe PACE 2C technology which increased the sensitivity of the state's screening program and allowed additional cases to be found.

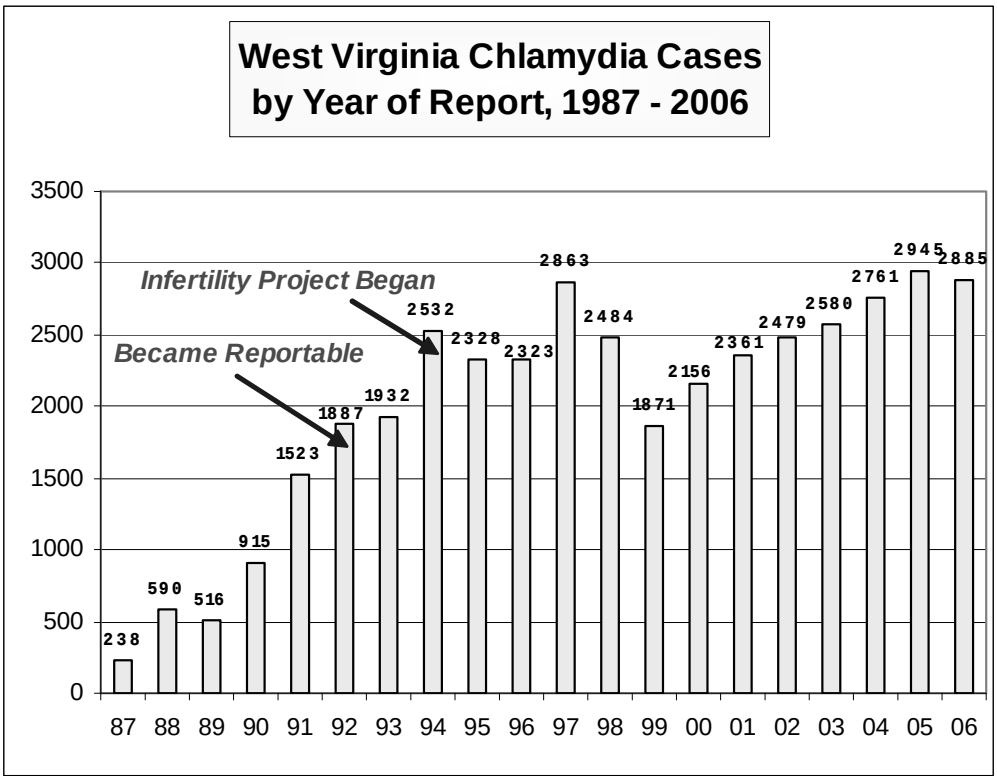


Figure 9.1

In 2006, West Viginia experienced more than 21% increase in reported gonorrhea cases compared to the prevous year. Reported cases of gonorrhea had been steadily decreasing from 1986 to 1993(except in 1995 and 2002 where they increased 18% and 34% respectively when compared to the previous years). In 1999 reported gonorrhea cases reached an all time low of 613 cases (Figure 9.2).

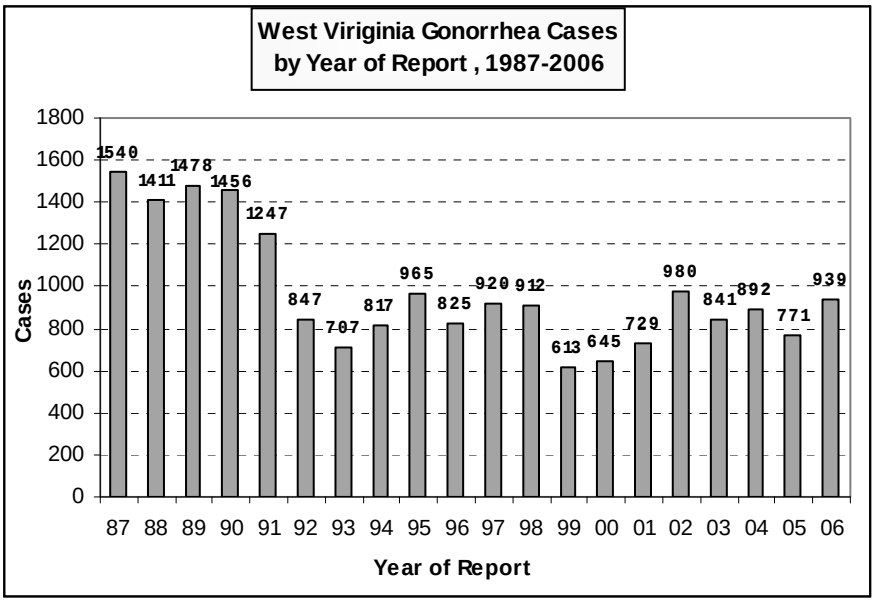


Figure 9.2

West Virginia Chlamydia and Gonorrhea by District, 2002-2006

Table 9.4 compares the proportion of the state population in each district with the proportion of chlamydia case reports. District 3 was disproportionately affected by chlamydia. This district, the smallest in geographic size (consisting of only four counties), has 16% of the state's populace but has accounted for 24% of the total chlamydia reported in the state in 2006 and over quarter of the cases for the last four years. This district contains the state's largest city, Charleston, where over 70% of the cases in the district occur. The other districts are primarily rural and have been burdened by chlamydia proportionately to their populations. The exception would be District 2, housing 14% of the state's populace but 16% of total chlamydia reported cases from 2002 through 2006. Another noteworthy point is that there were 6 cases without a county of residence in 2006.

Table 9.5 is a geographic presentation of gonorrhea distribution among each district. District 3 accounted for over one-third of the reported cases statewide over the last five years , but 29% of the reported cases in 2006, although only 16% of the state's population resides there. Districts 1 and 2, housing 12% and 14% of the state's populace, accounted for 17% and 26% of the statewide reports of gonorrhea in 2006 respectively. District 8 is primarily rural and has one urban area (Martinsburg), which is located within an hour's drive of Washington, DC, and Baltimore. This district houses the state's largest migrant population (specific data unavailable).

West Virginia Percentage of Total Chlamydia Cases by Public Health District, 2002 - 2006

District	2000 Population	% State Pop.	% Cases 2002	% Cases 2003	% Cases 2004	% Cases 2005	% Cases 2006	% Five Years Median
1	222,819	12	11	11	10	9	11	11
2	253,715	14	16	16	16	16	17	16
3	287,527	16	28	26	21	25	24	25
4	142,146	8	6	5	4	6	6	6
5	172,336	10	8	6	6	6	6	6
6	158,753	9	6	6	6	7	4	6
7	358,565	20	13	18	21	19	18	18
8	212,483	12	12	13	15	13	13	13
Total	**1,808,344**	**100**	**100**	**100**	**100**	**100**	**100**	

Table 9.4

West Virginia Percent of Total Gonorrhea Cases by Public Health District, 2002 - 2006

District	2000 Population	% State Pop.	% Cases 2002	% Cases 2003	% Cases 2004	% Cases 2005	% Cases 2006	% Five Years Median
1	222,819	12	17	14	12	19	17	13
2	253,715	14	14	9	16	20	26	12
3	287,527	16	42	37	33	26	29	36
4	142,146	8	4	3	3	3	3	3
5	172,336	10	3	4	3	2	1	3
6	158,753	9	7	10	4	5	1	7
7	358,565	20	3	11	15	16	15	11
8	212,483	12	9	12	14	8	7	12
Total	**1,808,344**	**100**	**100**	**100**	**100**	**100**	**100**	

Table 9.5

West Virginia Chlamydia and Gonorrhea Cases by District and Race, 2006

Table 9.6 is a breakdown of chlamydia cases in 2006 by race in each district, as compared to the total population by race for each district. In all districts, non-whites were disproportionately affected with chlamydia. In particular, Districts 1, 2, 3, and 8 had non-white case reports which accounted for 18.3% of the total reported cases in the state, although their non-white populations are relatively small (7%, 3%, 6% and 4%, respectively). Non-whites represent 4% of the total state population but accounted for more than 22% of the total chlamydia reports in 2006.

Table 9.7 is a breakdown of gonorrhea cases in 2006 by race in each district as compared to the total population by race for each district. In all districts, non-whites were disproportionately affected with gonorrhea. In particular, Districts 1, 2, 3, and 8 had non-white case reports which accounted for 39% of the total reported cases in the state, although their non-white populations are relatively small (7%, 3%, 6%, and 4%, respectively). Non-whites represent 4% of the total state population but accounted for 39% of the total gonorrhea reports in 2006.

West Virginia Chlamydia Cases by Public Health District and Race, 2006

District	White				Non-White				Unknown	
	District Pop.		Cases		District Pop.		Cases		Cases	
	#	%	#	%	#	%	#	%	#	%
1	204,505	93	193	62	18,314	7	88	28	32	10
2	243,738	97	329	68	9,977	3	91	19	61	13
3	266,837	94	416	59	20,690	6	187	27	100	14
4	136,223	96	132	81	5,923	4	18	11	13	8
5	168,908	99	154	86	3,428	1	8	4	18	10
6	153,681	98	104	83	5,072	2	14	11	8	6
7	344,281	97	379	69	14,284	3	78	14	75	14
8	200,604	96	252	58	11,879	4	161	37	18	4
Total	**1,718,777**	**96**	**1,959**	**66**	**89,567**	**4**	**645**	**22**	**325**	**11**

Table 9.6

West Virginia Gonorrhea Cases by Public Health District and Race, 2006

District	White				Non-White				Unknown	
	District Pop.		Cases		District Pop.		Cases		Cases	
	#	%	#	%	#	%	#	%	#	%
1	204,505	93	67	41	18,314	7	74	46	21	13
2	243,738	97	109	45	9,977	3	113	46	22	9
3	266,837	94	119	44	20,690	6	133	49	19	7
4	136,223	96	16	52	5,923	4	13	42	2	6
5	168,908	99	9	75	3,428	1	0	0	3	25
6	153,681	98	11	85	10,585	2	2	15	0	0
7	344,281	97	69	50	14,284	3	47	34	23	17
8	200,604	96	33	49	6,366	4	25	37	9	13
Total	**1,718,777**	**96**	**433**	**46**	**89,567**	**4**	**407**	**43**	**99**	**11**

Table 9.7

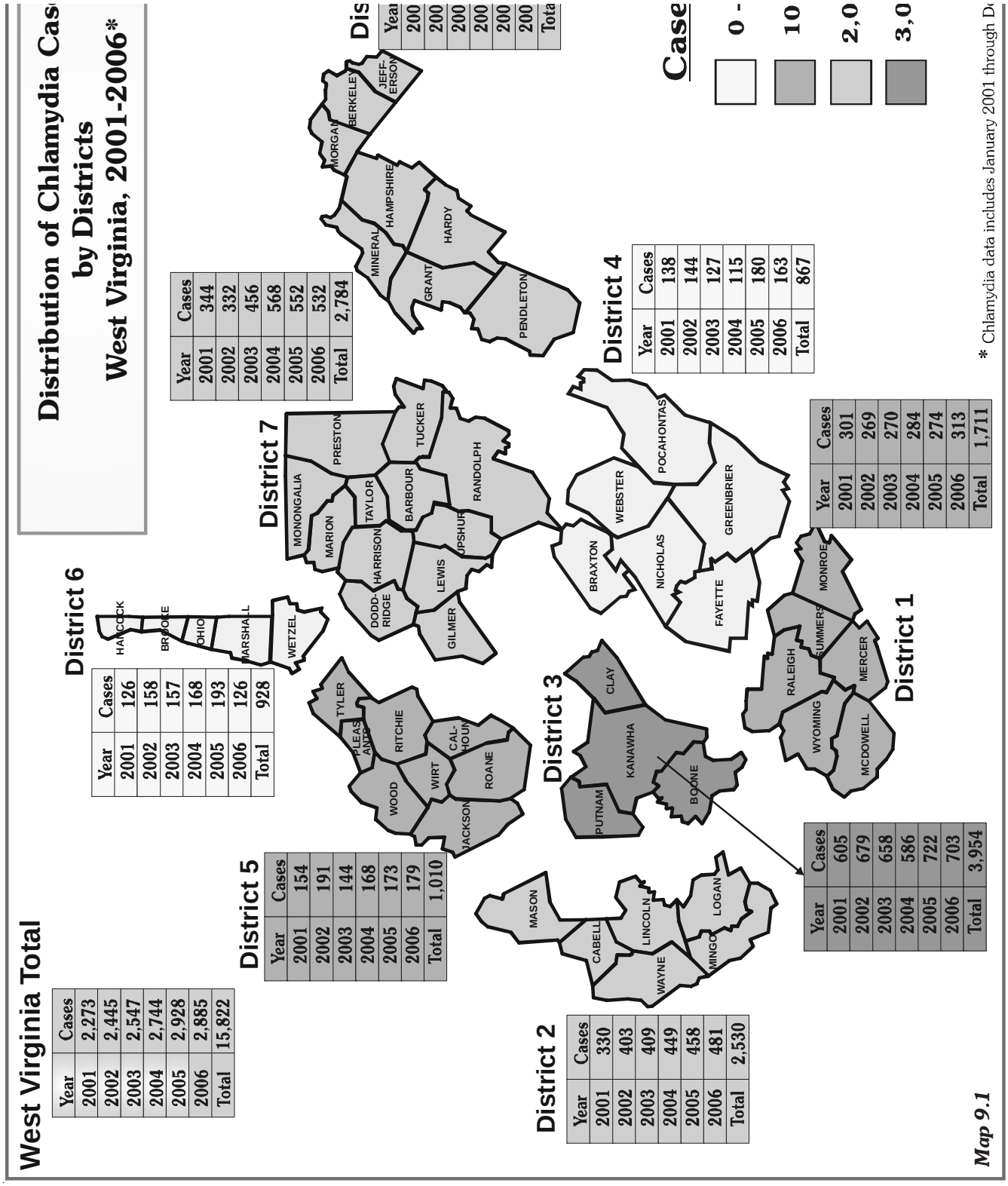
West Virginia Syphilis Cases by Public Health District, 2002-2006

West Virginia Syphilis Cases by Public Health District, 2002 - 2006													
District	2000 Population	% State Pop.	2002		2003		2004		2005		2006		Median
			#	%	#	%	#	%	#	%	#	%	
1	222,819	12	1	14	3	18	0	0	0	0	3	10	1
2	253,715	14	1	14	3	18	7	39	1	6	5	17	3
3	287,527	16	3	43	1	6	2	11	2	11	4	13	2
4	142,146	8	1	14	0	0	0	0	0	0	2	7	0
5	172,336	10	1	14	1	6	2	11	2	11	0	0	1
6	158,753	9	0	0	0	0	2	11	2	11	3	10	2
7	358,565	20	0	0	5	29	1	6	4	22	8	27	4
8	212,483	12	0	0	4	24	4	22	7	39	5	17	4
Total	**1,808,344**	**100**	**7**	**100**	**17**	**100**	**18**	**100**	**18**	**100**	**30**	**100**	**18**

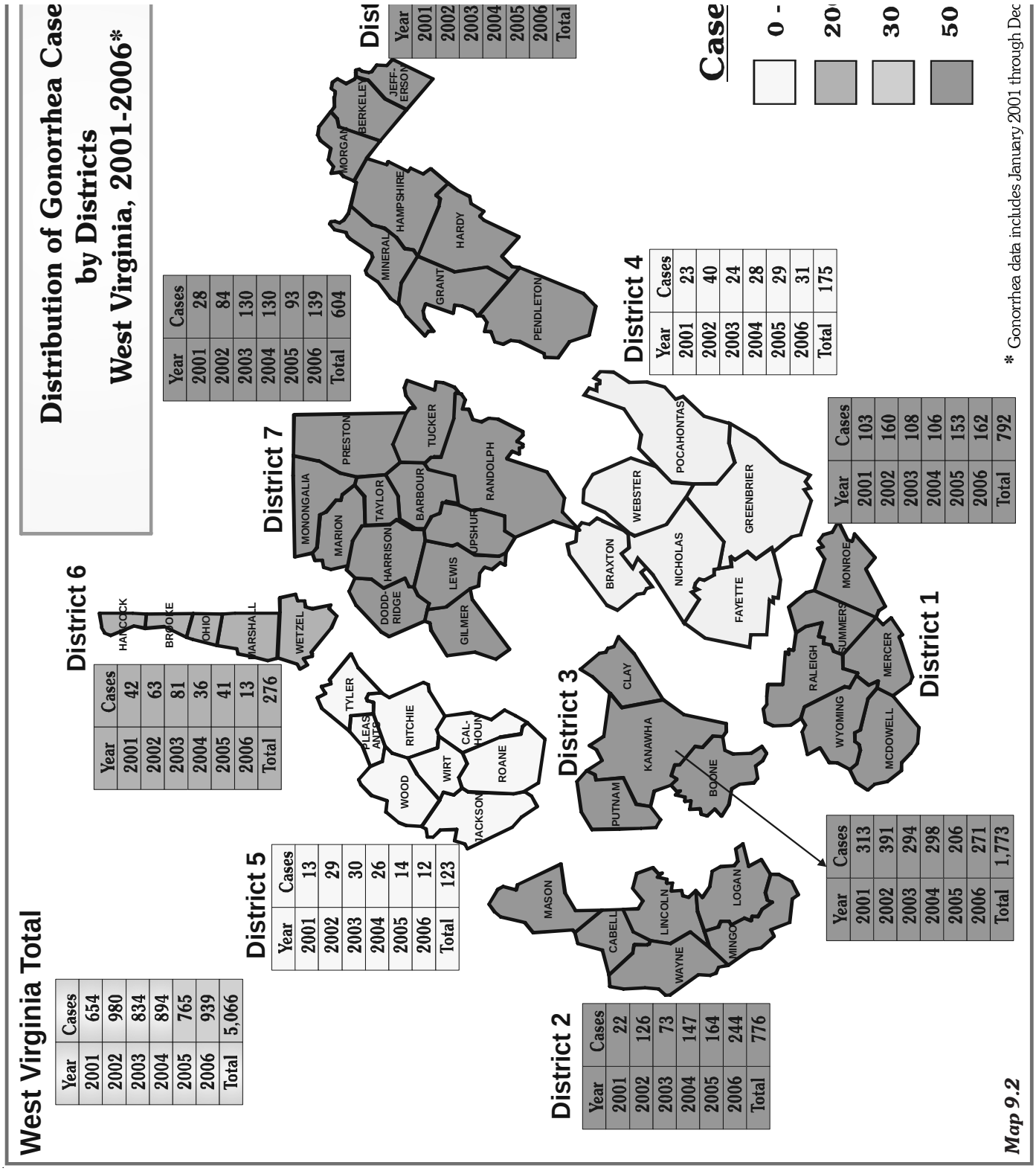
Table 9.8

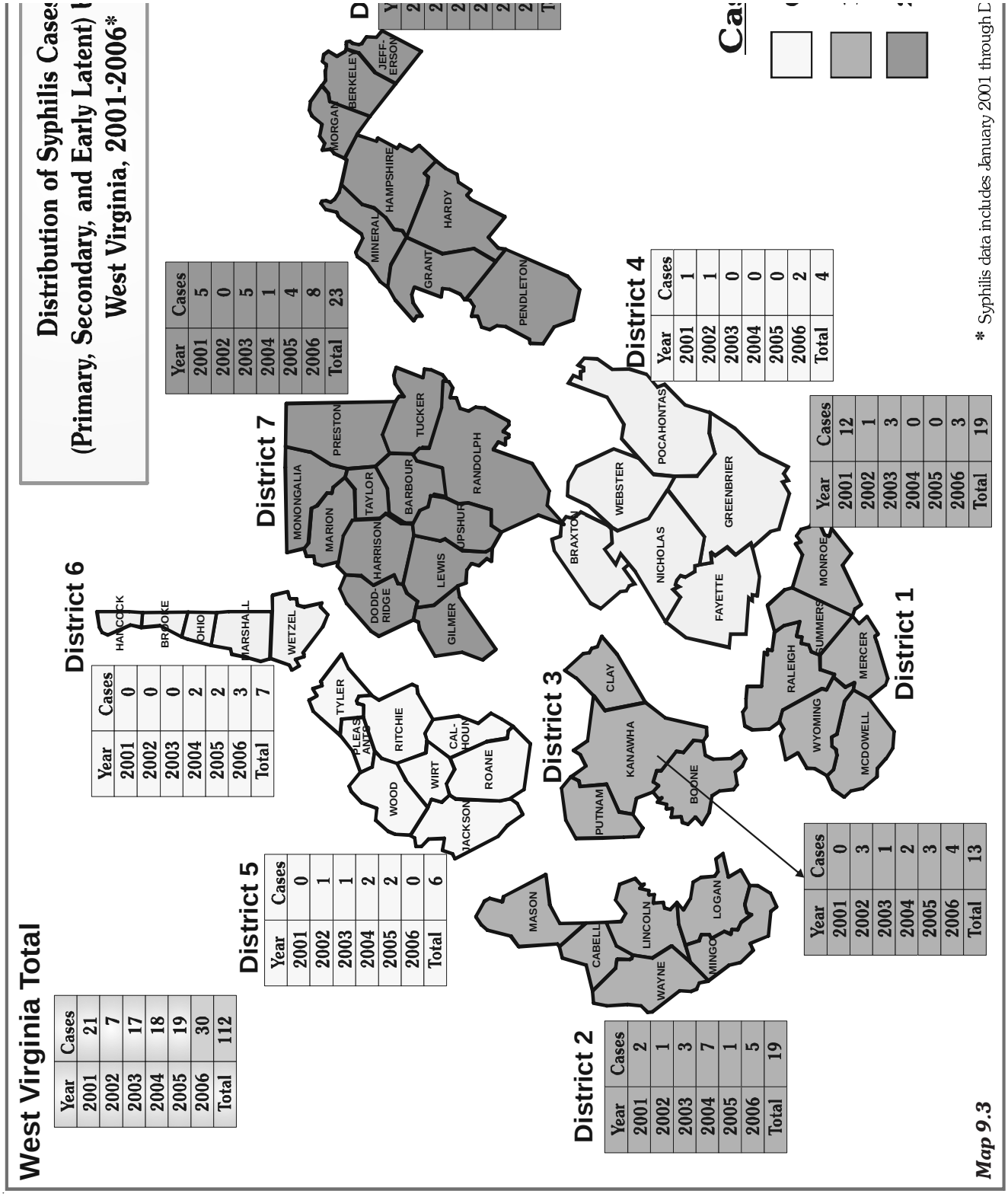
Table 9.8 compares the proportion of the state population in each district with the proportion of early syphilis* cases reported to state health department. District 7 was disproportionately affected by syphilis. This district houses, 20% of the state's populace but has accounted for 27% of the total syphilis reported in 2006. District 8 was also proportionately higher than other districts, housing 12% of the state's population while accounting for 17% of the total reported syphilis cases in 2006.

* early syphilis includes primary, secondary, and early latent syphilis cases.


Distribution of Chlamydia Cas
by Districts
West Virginia, 2001-2006*
West Virginia Total
Year Cases
2001 2,273
2002 2,445
2003 2,547
2004 2,744
2005 2,928
2006 2,885
Total 15,822
District 6
Year Cases
2001 126
2002 158
2003 157
2004 168
2005 193
2006 126
Total 928
District 5
Year Cases
2001 154
2002 191
2003 144
2004 168
2005 173
2006 179
Total 1,010
District 2
Year Cases
2001 330
2002 403
2003 409
2004 449
2005 458
2006 481
Total 2,530
District 7
Year Cases
2001 344
2002 332
2003 456
2004 568
2005 552
2006 532
Total 2,784
District 4
Year Cases
2001 138
2002 144
2003 127
2004 115
2005 180
2006 163
Total 867
District 3
Year Cases
2001 605
2002 679
2003 658
2004 586
2005 722
2006 703
Total 3,954
District 1
Year Cases
2001 301
2002 269
2003 270
2004 284
2005 274
2006 313
Total 1,711
Dis
Year
200
200
200
200
200
200
Tota
Case
0 -
10
2,0
3,0
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
TYLER
PLEASANTS
RITCHIE
WOOD
WIRT
CALHOUN
ROANE
JACKSON
MONONGALIA
MARION
PRESTON
TAYLOR
HARRISON
DODDRIDGE
BARBOUR
TUCKER
UPSHUR
LEWIS
RANDOLPH
GILMER
MORGAN
BERKELEY
JEFFERSON
MINERAL
HAMPSHIRE
GRANT
HARDY
PENDLETON
BRAXTON
WEBSTER
POCAHONTAS
NICHOLAS
GREENBRIER
FAYETTE
CLAY
PUTNAM
KANAWHA
BOONE
MASON
CABELL
LINCOLN
WAYNE
MINGO
LOGAN
MONROE
SUMMERS
RALEIGH
MERCER
WYOMING
MCDOWELL
* Chlamydia data includes January 2001 through D

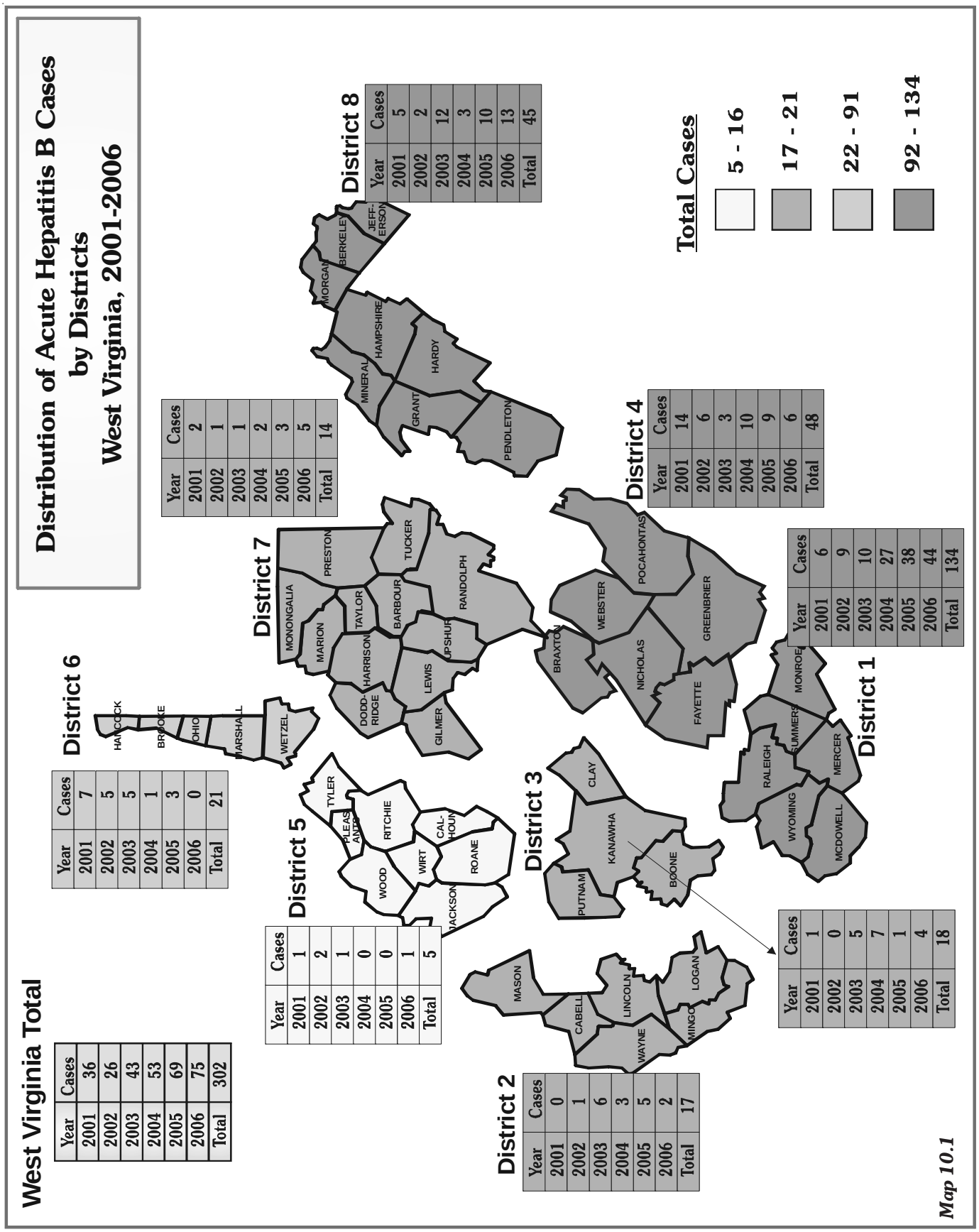
Map 9.1


Distribution of Gonorrhea Case
by Districts
West Virginia, 2001-2006*
West Virginia Total
Year Cases
2001 654
2002 980
2003 834
2004 894
2005 765
2006 939
Total 5,066
District 6
Year Cases
2001 42
2002 63
2003 81
2004 36
2005 41
2006 13
Total 276
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
District 5
Year Cases
2001 13
2002 29
2003 30
2004 26
2005 14
2006 12
Total 123
TYLER
PLEASANTS
RITCHIE
WOOD
WIRT
CALHOUN
ROANE
JACKSON
District 2
Year Cases
2001 22
2002 126
2003 73
2004 147
2005 164
2006 244
Total 776
MASON
CABELL
LINCOLN
WAYNE
MINGO
LOGAN
District 7
Year Cases
2001 28
2002 84
2003 130
2004 130
2005 93
2006 139
Total 604
MONONGALIA
PRESTON
TUCKER
MARION
TAYLOR
BARBOUR
HARRISON
UPSHUR
RANDOLPH
DODDRIDGE
LEWIS
GILMER
District 3
Year Cases
2001 313
2002 391
2003 294
2004 298
2005 206
2006 271
Total 1,773
CLAY
KANAWHA
PUTNAM
BOONE
District 4
Year Cases
2001 23
2002 40
2003 24
2004 28
2005 29
2006 31
Total 175
BRAXTON
WEBSTER
POCAHONTAS
NICHOLAS
GREENBRIER
FAYETTE
District 1
Year Cases
2001 103
2002 160
2003 108
2004 106
2005 153
2006 162
Total 792
MONROE
RALEIGH
SUMMERS
MERCER
WYOMING
MCDOWELL
MORGAN
BERKELEY
JEFFERSON
MINERAL
HAMPSHIRE
HARDY
GRANT
PENDLETON
Year Cases
2001
2002
2003
2004
2005
2006
Total
Case
0 -
20
30
50
* Gonorrhea data includes January 2001 through Dec
Map 9.2


Distribution of Syphilis Cases
(Primary, Secondary, and Early Latent)
West Virginia, 2001-2006*
West Virginia Total
Year Cases
2001 21
2002 7
2003 17
2004 18
2005 19
2006 30
Total 112
District 6
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
Year Cases
2001 0
2002 0
2003 0
2004 2
2005 2
2006 3
Total 7
District 5
Year Cases
2001 0
2002 1
2003 1
2004 2
2005 2
2006 0
Total 6
District 7
MONGALIA
PRESTON
TUCKER
MARION
TAYLOR
BARBOUR
HARRISON
UPSHUR
RANDOLPH
DODD-RIDGE
LEWIS
GILMER
Year Cases
2001 5
2002 0
2003 5
2004 1
2005 4
2006 8
Total 23
MORGAN
BERKELEY
JEFF-ERSON
MINERAL
HAMPSHIRE
HARDY
GRANT
PENDLETON
District 4
Year Cases
2001 1
2002 1
2003 0
2004 0
2005 0
2006 2
Total 4
BRAXTON
WEBSTER
POCAHONTAS
NICHOLAS
GREENBRIER
FAYETTE
TYLER
PLEASANTS
RITCHIE
WOOD
WIRT
CAL-HOUN
ROANE
JACKSON
District 3
CLAY
KANAWHA
PUTNAM
BOONE
District 1
Year Cases
2001 12
2002 1
2003 3
2004 0
2005 0
2006 3
Total 19
MONROE
RALEIGH
SUMMERS
MERCER
WYOMING
MCDOWELL
District 2
Year Cases
2001 2
2002 1
2003 3
2004 7
2005 1
2006 5
Total 19
MASON
CABELL
LINCOLN
LOGAN
WAYNE
MINGO
Year Cases
2001 0
2002 3
2003 1
2004 2
2005 3
2006 4
Total 13
* Syphilis data includes January 2001 through D
Map 9.3

SECTION 5:

Reported Acute Hepatitis B and C


Distribution of Acute Hepatitis B Cases
by Districts
West Virginia, 2001-2006
Total Cases
5 - 16
17 - 21
22 - 91
92 - 134
District 1
District 2
District 3
District 4
District 5
District 6
District 7
District 8
MONROE
SUMMERS
MERCER
RALEIGH
WYOMING
MCDOWELL
MASON
CABELL
LINCOLN
WAYNE
MINGO
LOGAN
CLAY
KANAWHA
PUTNAM
BOONE
TYLER
PLEASANTS
RITCHIE
WOOD
WIRT
CAL-HOUN
ROANE
JACKSON
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
MONONGALIA
PRESTON
TUCKER
MARION
TAYLOR
BARBOUR
HARRISON
UPSHUR
RANDOLPH
DODD-RIDGE
LEWIS
GILMER
BRAXTON
WEBSTER
POCAHONTAS
NICHOLAS
GREENBRIER
FAYETTE
MORGAN
BERKELEY
JEFF-ERSON
MINERAL
HAMPSHIRE
HARDY
GRANT
PENDLETON
West Virginia Total
Year Cases
2001 36
2002 26
2003 43
2004 53
2005 69
2006 75
Total 302
District 1
Year Cases
2001 6
2002 9
2003 10
2004 27
2005 38
2006 44
Total 134
District 2
Year Cases
2001 0
2002 1
2003 6
2004 3
2005 5
2006 2
Total 17
District 3
Year Cases
2001 1
2002 0
2003 5
2004 7
2005 1
2006 4
Total 18
District 4
Year Cases
2001 14
2002 6
2003 3
2004 10
2005 9
2006 6
Total 48
District 5
Year Cases
2001 1
2002 2
2003 1
2004 0
2005 0
2006 1
Total 5
District 6
Year Cases
2001 7
2002 5
2003 5
2004 1
2005 3
2006 0
Total 21
District 7
Year Cases
2001 2
2002 1
2003 1
2004 2
2005 3
2006 5
Total 14
District 8
Year Cases
2001 5
2002 2
2003 12
2004 3
2005 10
2006 13
Total 45
Map 10.1

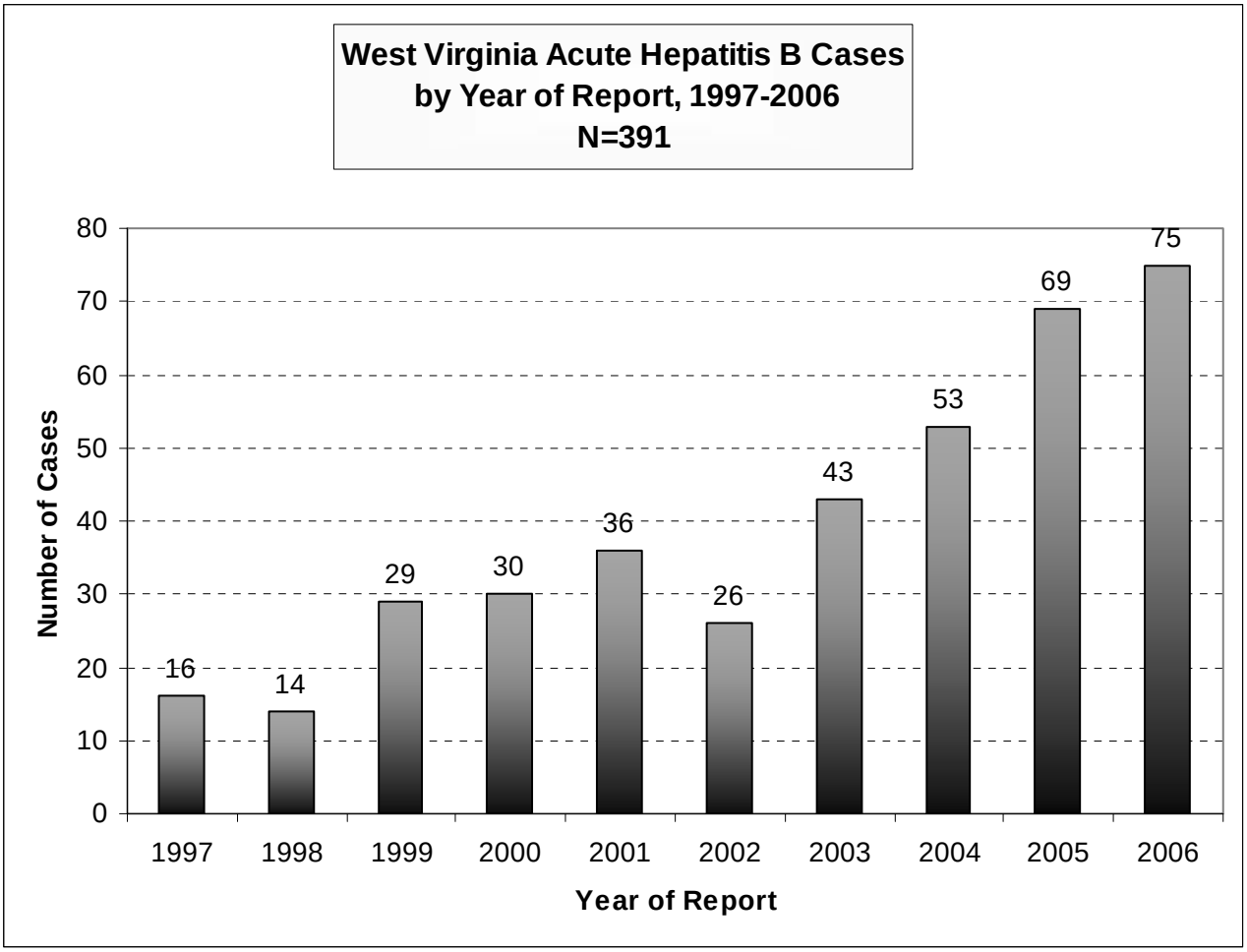


Figure 10.1

Clinical case definition:

An acute illness with a) discrete onset of symptoms and b) jaundice or elevated serum aminotransferase levels

Laboratory criteria for *Hepatitis B* diagnosis:

- IgM antibody to hepatitis B core antigen (anti-HBc) positive or hepatitis B surface antigen (HBsAg) positive
- IgM anti-HAV negative (if done)

Case classification:

Confirmed:

a case that meets the clinical case definition and is laboratory confirmed and/or occurs in a person who has an epidemiologic link with a person who has laboratory-confirmed hepatitis B (i.e., household or sexual contact with an infected person during the 15-50 days before the onset of symptoms)

In 1998, the Legislature amended the Public Health Codes to include hepatitis B as a reportable STD. Therefore, follow up on all infectious (surface antigen and core antibody IgM) individuals for care and partner notification is conducted by the local health department nurses and/ or the Disease Investigation Specialists (DIS). In 2006, 389 individuals tested positive for hepatitis B surface antigen (HBsAg) and/or hepatitis B core antibody IgM (HBcAb IgM) and were investigated. Of these cases, 75 were identified as having acute hepatitis B and household and partner notification was completed. Additionally, 71 cases were identified as chronic.

Based on figure 10.1 there has been a steady increase of acute hepatitis B cases since 1999 with the exception of 2002. In 2000, 30 acute cases were reported and in 2001 the cases increased to 36. In 2002, the number of acute cases declined by 10 from the previous year but increased to 43 cases in 2003. From 2004 through 2006 the number of acute cases increased significantly with 53 cases in 2004 to 69 cases in 2005 to 75 cases in 2006.

As map 10.1 illustrates, from 2001-2005 acute hepatitis B was spread across the state. As with other STDs, district 1 continues to be disproportionately affected with acute hepatitis B cases (134), with district 4 and 8 following close behind with 48 and 45 cases respectively.

The Centers for Disease Control and Prevention recognizes the following characteristics as risk factors for hepatitis B: injection drug use (IDU), multiple sex partners, percutaneous injury (e.g. needle stick), medical employee with contact with blood, transfusion and hemodialysis.

Figure 10.2 displays during that 2001 through 2006 time period, persons with acute hepatitis B reported being IDU (53%) and having multiple sex partners (32%) as their highest risk behavior. This was followed by needle stick at 10%, medical employee with contact with blood at 3% and transfusion and hemodialysis both at 1%.

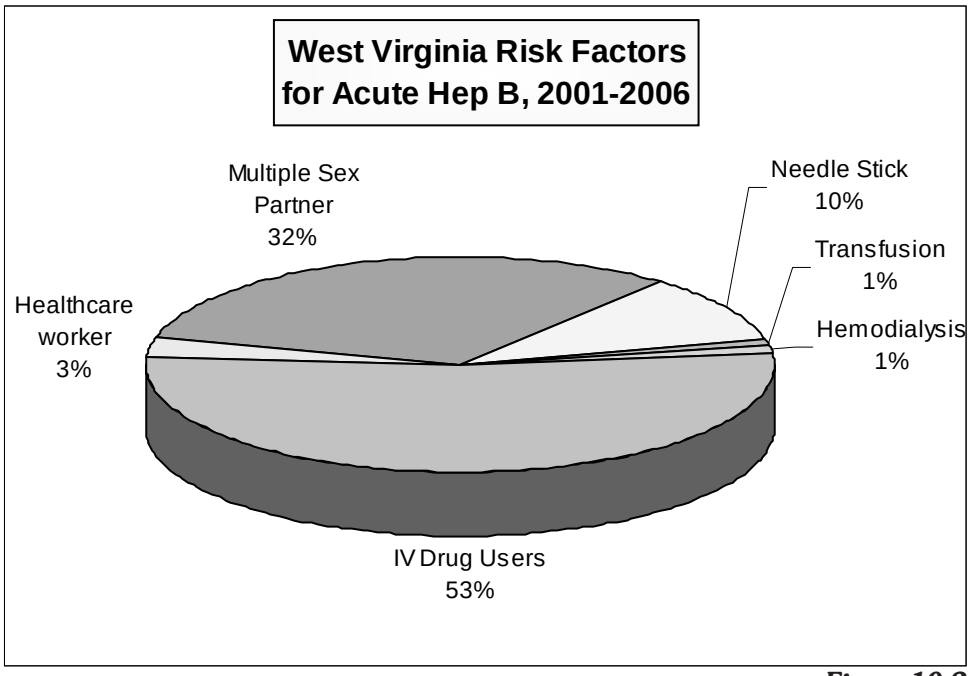
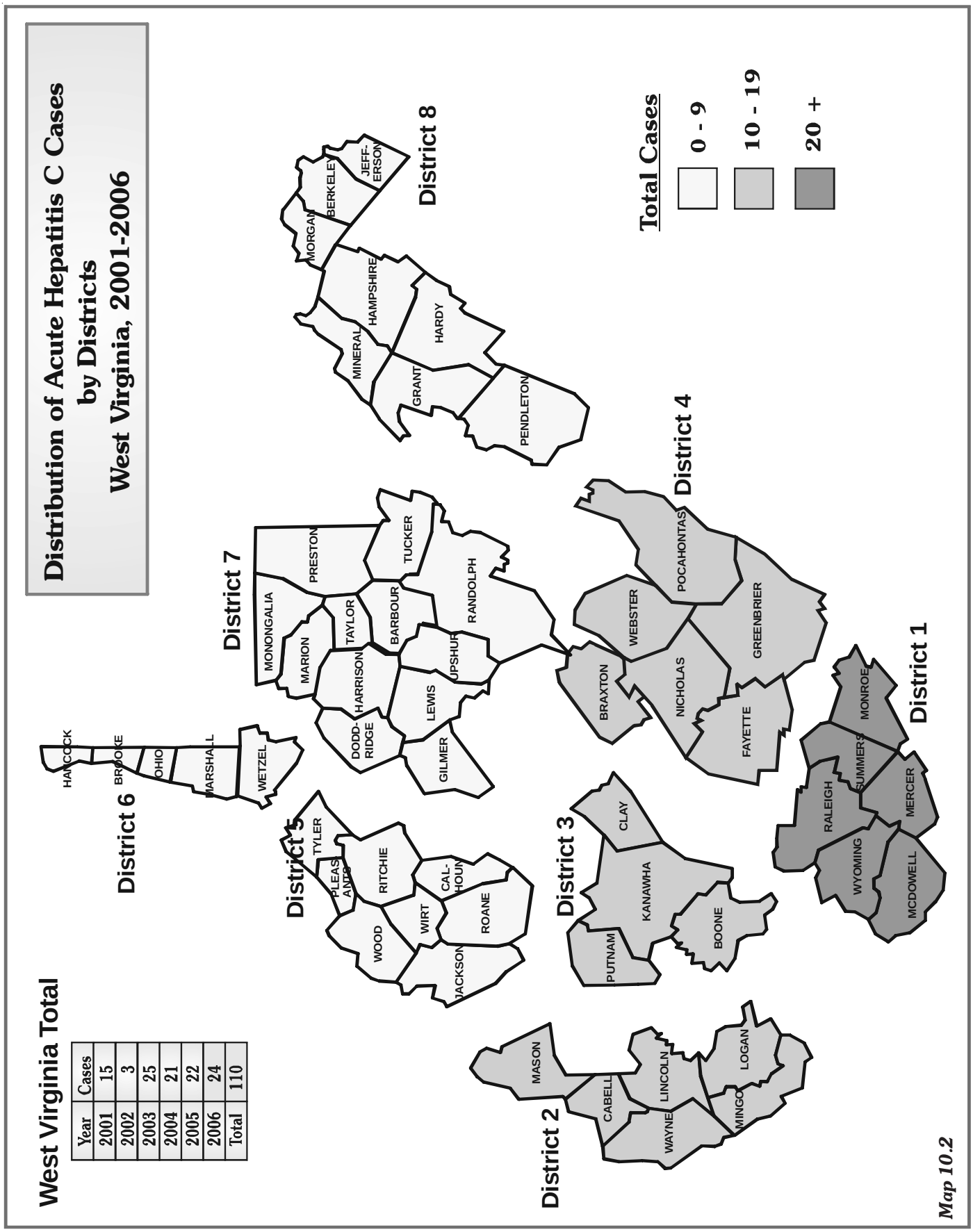


Figure 10.2


Distribution of Acute Hepatitis C Cases
by Districts
West Virginia, 2001-2006
District 8
MORGAN
BERKELEY
JEFF-
ERSON
MINERAL
HAMPSHIRE
HARDY
GRANT
PENDLETON
District 7
MONONGALIA
PRESTON
TUCKER
MARION
TAYLOR
BARBOUR
RANDOLPH
HARRISON
UPSHUR
DODD-
RIDGE
LEWIS
GILMER
District 6
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
District 5
TYLER
PLEAS-
ANTS
RITCHIE
CAL-
HOUN
WOOD
WIRT
ROANE
JACKSON
District 4
POCAHONTAS
WEBSTER
BRAXTON
NICHOLAS
GREENBRIER
FAYETTE
District 3
CLAY
KANAWHA
PUTNAM
BOONE
District 1
MONROE
SUMMERS
RALEIGH
MERCER
WYOMING
MCDOWELL
District 2
MASON
CABELL
LINCOLN
LOGAN
WAYNE
MINGO
Total Cases
0 - 9
10 - 19
20 +
West Virginia Total
Year Cases
2001 15
2002 3
2003 25
2004 21
2005 22
2006 24
Total 110
Map 10.2

Clinical description:

Most hepatitis C virus (HCV) infected persons are asymptomatic. However, many have chronic liver disease, which can range from mild to severe including cirrhosis and liver cancer.

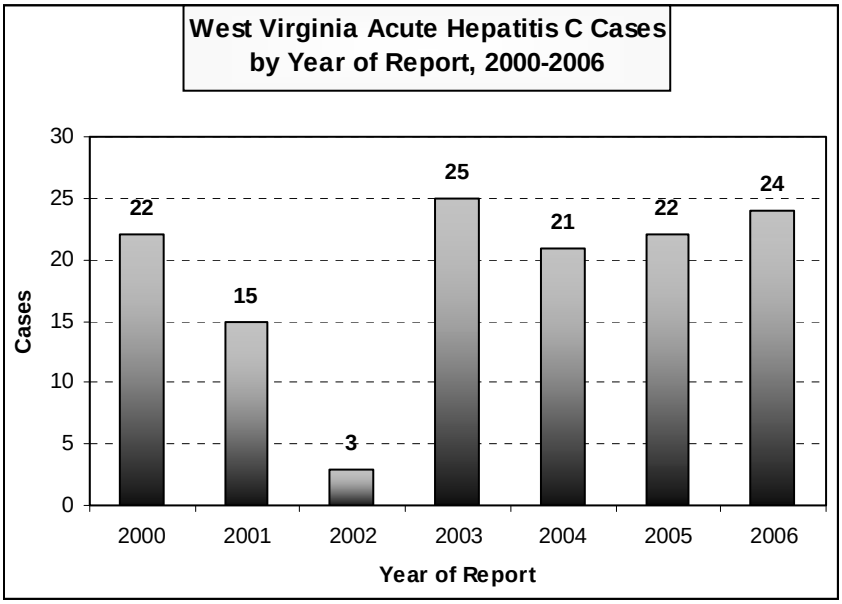


Figure 10.3

Laboratory criteria for Hepatitis C diagnosis:

- Anti-HCV positive (repeat reactive) by EIA, verified by an additional more specific assay (e.g. RIBA for anti-HCV or nucleic acid testing for HCV RNA), OR
- HCV RIBA positive, OR
- Nucleic acid test for HCV RNA positive, OR
- Report of HCV genotype, OR
- Anti-HCV screening-test-positive with a signal to cut-off ratio predictive of a true positive as determined for the particular assay (e.g., >="3.8 for the enzyme immunoassays) as determined and posted by CDC.

Revised Acute Hepatitis C Case Definition

The Council of State and Territorial Epidemiologist (CSTE) recognizies the complexity in differentiating chronic hepatitis C from acute hepatitis C infection. As such, CSTE recommends the adoption of a revised case definition for acute hepatitis C infection.

The Infectious Disease Epidemiology Program (IDEP) of WVDHHR supports CSTE's recommendation and is adopted the revised acute hepatitis C case definition.

Reported Risk Factors for Acute Hepatitis Cases
West Virginia, 2000-2006
N=134

Risk Factor	Risk Factor Present		Risk Factor Absent		Missing/ unknown	
	Count	%	Count	%	Count	%
Drug User	36	26.9	50	37.3	46	35.8
More than 1 Sex Partner	16	11.9	52	38.8	63	49.3
Medical Employee	3	2.2	72	53.7	57	44.0
Dialysis	1	0.7	87	64.9	38	34.3

Table 10.1

Case Definition:

Clinical Description

An acute illness with a discrete onset of any sign or symptom consistent with acute viral hepatitis (e.g. anorexia, abdominal discomfort, nausea, vomiting), AND

a. Jaundice OR

b. Serum alanine aminotransferase (ALT) levels >400 IU/L

Laboratory criteria

One of more of the following:

- Anti-HCV screening-test-positive with a signal cut-off ratio predictive of a true positive as determined for the particular assay as defined by CDC, OR
- HCV RIBA positive, OR
- NAT for HCV RNA positive, OR
- IgM antibody to hepatitis A virus (IgM anti-HAV) negative, AND
- IgM antibody to hepatitis B core atigen (IgM anti-HBC) negative.

Case classification

Confirmed: A case that meets the clinical case definition, is laboratory confirmed, and is not known to have chronic hepatitis C.

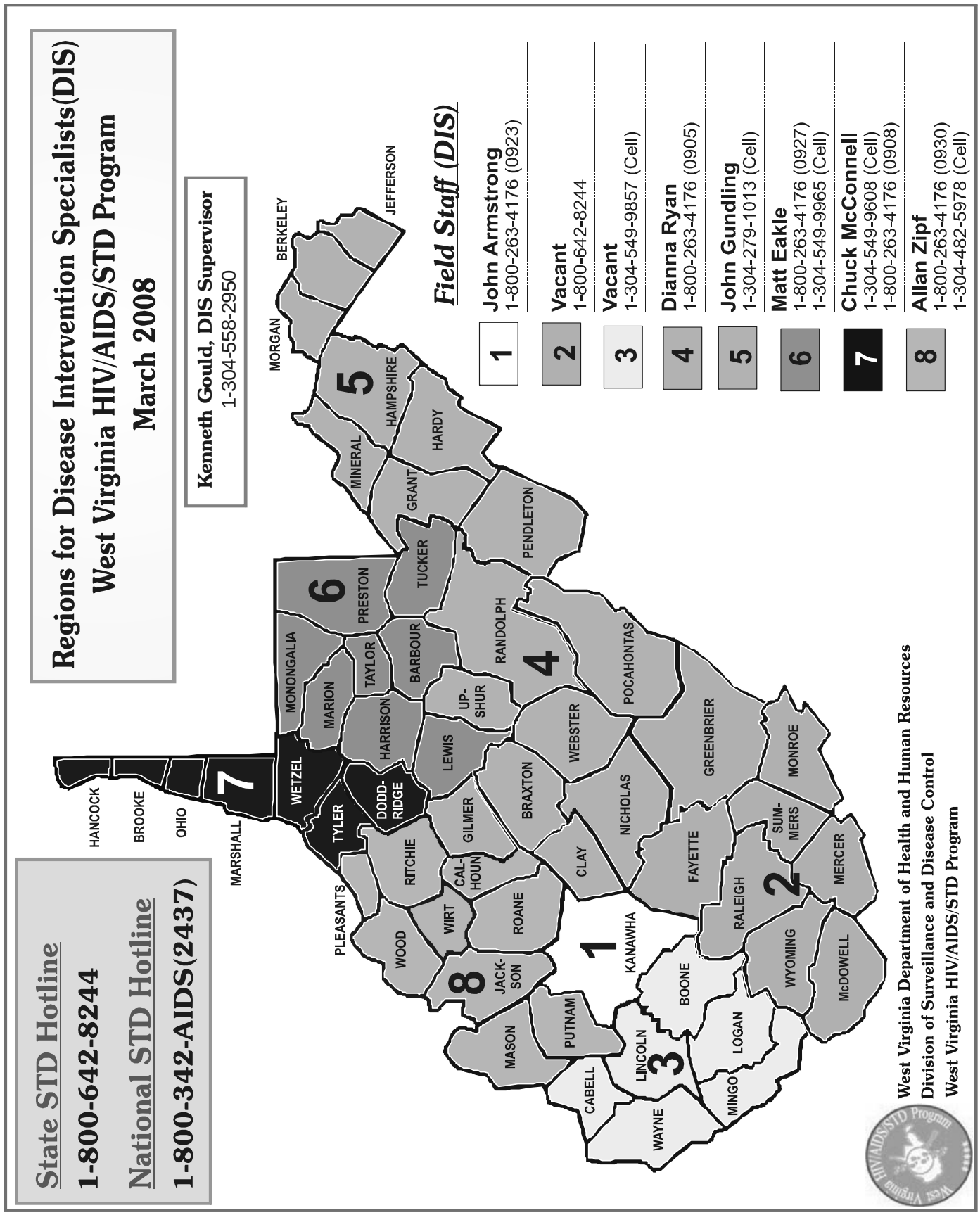
Laboratory Diagnosis of Hepatitis C

During acute infection, HCV RNA is first detectable within 1-3 weeks after exposure. The patient is viremic and potentially infectious at this time. Elevated ALT generally occurs at about 6-7 weeks after exposure, and the EIA becomes positive at about 6-12 weeks. Only 50-70% of individuals have a positive EIA at the onset of symptoms; 90% will seroconvert within 3 months.

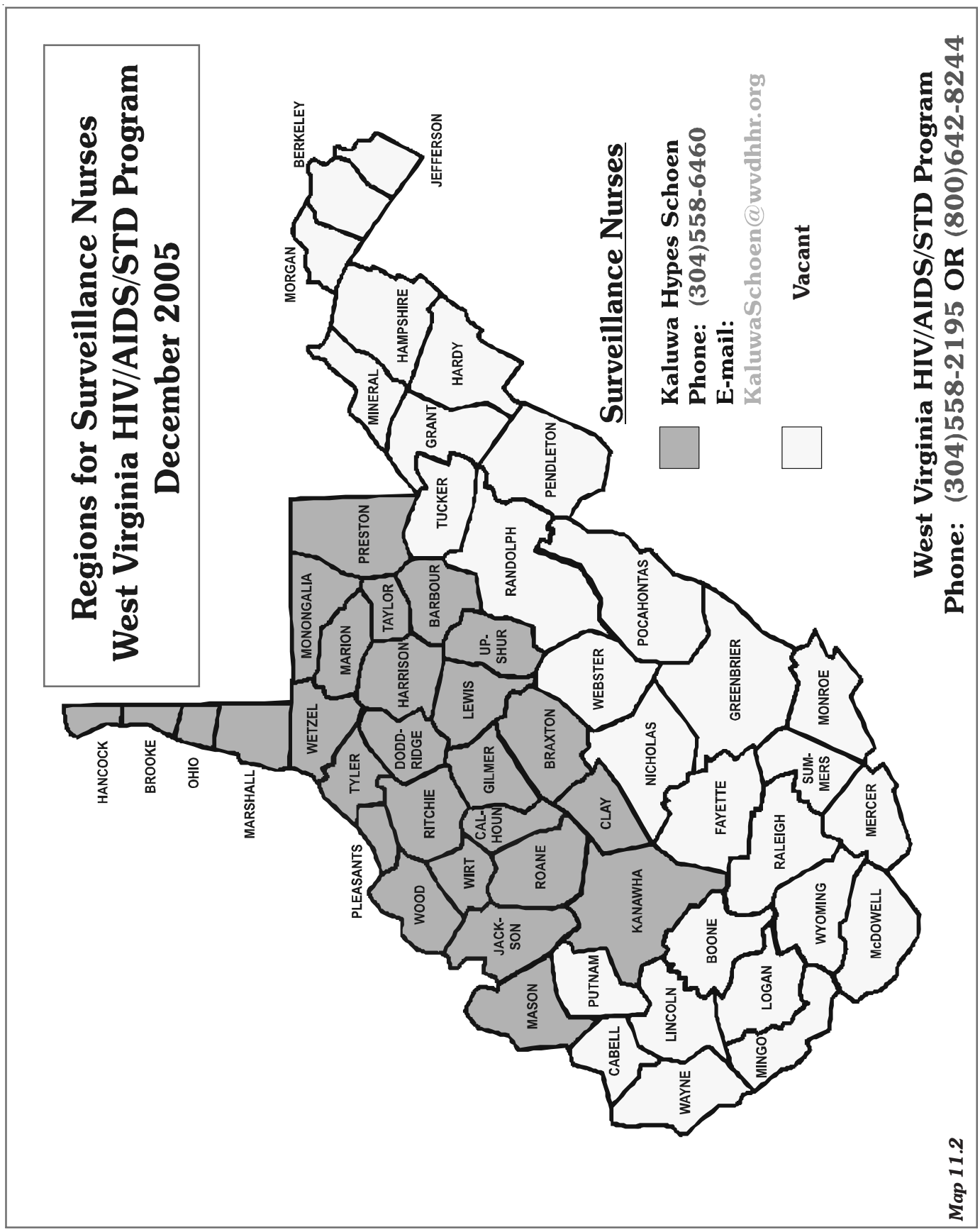
As Map 10.2 illustrates, distribution of acute hepatitis C by district in West Virginia.

Figure 10.4 displays during the 2000 through 2006 time period, persons with acute hepatitis C reported having multiple sex partners (12%) and being IDU (27%) as their highest risk behavior. This was followed by medical employee with contact with blood and dialysis.

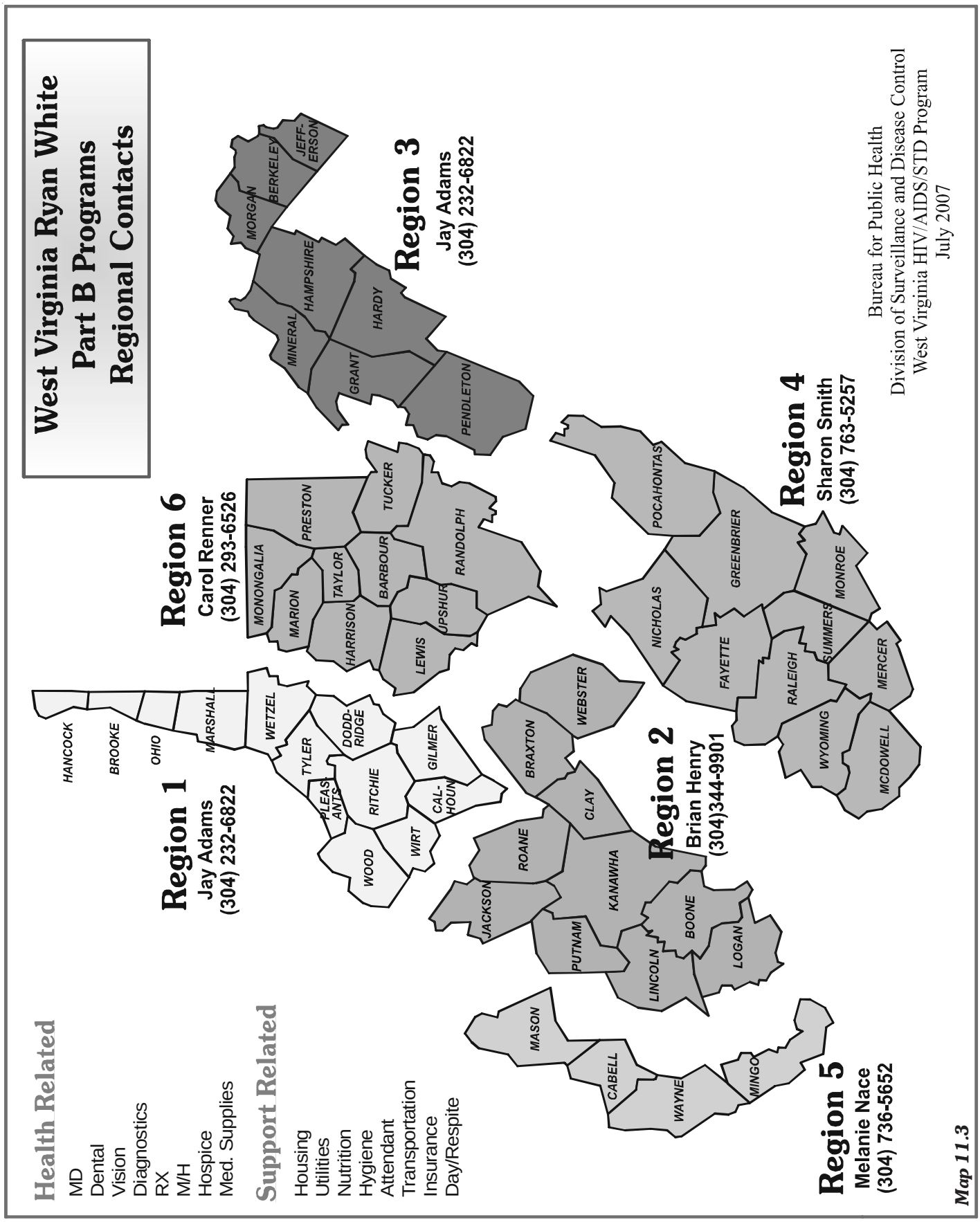
Appendix


Regions for Disease Intervention Specialists(DIS)
West Virginia HIV/AIDS/STD Program
March 2008
Kenneth Gould, DIS Supervisor
1-304-558-2950
State STD Hotline
1-800-642-8244
National STD Hotline
1-800-342-AIDS(2437)
Field Staff (DIS)
1 John Armstrong 1-800-263-4176 (0923)
2 Vacant 1-800-642-8244
3 Vacant 1-304-549-9857 (Cell)
4 Dianna Ryan 1-800-263-4176 (0905)
5 John Gundling 1-304-279-1013 (Cell)
6 Matt Eakle 1-800-263-4176 (0927) 1-304-549-9965 (Cell)
7 Chuck McConnell 1-304-549-9608 (Cell) 1-800-263-4176 (0908)
8 Allan Zipf 1-800-263-4176 (0930) 1-304-482-5978 (Cell)
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
TYLER
PLEASANTS
MONONGALIA
MARION
TAYLOR
DODD-RIDGE
HARRISON
PRESTON
BARBOUR
TUCKER
MINERAL
GRANT
HAMPSHIRE
HARDY
MORGAN
BERKELEY
JEFFERSON
PENDLETON
RANDOLPH
UP-SHUR
LEWIS
GILMER
BRAXTON
WEBSTER
POCAHONTAS
GREENBRIER
MONROE
SUM-MERS
MERCER
McDOWELL
WYOMING
RALEIGH
FAYETTE
NICHOLAS
CLAY
CAL-HOUN
RITCHIE
WIRT
WOOD
ROANE
JACK-SON
MASON
PUTNAM
KANAWHA
BOONE
LOGAN
MINGO
LINCOLN
CABELL
WAYNE
West Virginia Department of Health and Human Resources
Division of Surveillance and Disease Control
West Virginia HIV/AIDS/STD Program

Map 11.1


Regions for Surveillance Nurses
West Virginia HIV/AIDS/STD Program
December 2005
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
TYLER
PLEASANTS
MONONGALIA
MARION
PRESTON
TAYLOR
BARBOUR
HARRISON
DODD-RIDGE
RITCHIE
WOOD
WIRT
JACK-SON
MASON
LEWIS
UP-SHUR
GILMER
CAL-HOUN
ROANE
PUTNAM
CABELL
WAYNE
BRAXTON
CLAY
KANAWHA
LINCOLN
BOONE
MINGO
LOGAN
WEBSTER
NICHOLAS
FAYETTE
RALEIGH
WYOMING
McDOWELL
MERCER
SUM-MERS
MONROE
GREENBRIER
POCAHONTAS
RANDOLPH
TUCKER
PENDLETON
GRANT
MINERAL
HARDY
HAMPSHIRE
MORGAN
BERKELEY
JEFFERSON
Surveillance Nurses
Kaluwa Hypes Schoen
Phone: (304)558-6460
E-mail:
KaluwaSchoen@wvdhhr.org
Vacant
West Virginia HIV/AIDS/STD Program
Phone: (304)558-2195 OR (800)642-8244

Map 11.2


West Virginia Ryan White
Part B Programs
Regional Contacts
Health Related
MD
Dental
Vision
Diagnostics
RX
M/H
Hospice
Med. Supplies
Support Related
Housing
Utilities
Nutrition
Hygiene
Attendant
Transportation
Insurance
Day/Respite
Region 1
Jay Adams
(304) 232-6822
Region 2
Brian Henry
(304)344-9901
Region 3
Jay Adams
(304) 232-6822
Region 4
Sharon Smith
(304) 763-5257
Region 5
Melanie Nace
(304) 736-5652
Region 6
Carol Renner
(304) 293-6526
HANCOCK
BROOKE
OHIO
MARSHALL
WETZEL
TYLER
PLEAS-ANTS
DODD-RIDGE
RITCHIE
GILMER
CAL-HOUN
WOOD
WIRT
MONONGALIA
MARION
PRESTON
TAYLOR
HARRISON
BARBOUR
TUCKER
UPSHUR
RANDOLPH
LEWIS
MORGAN
BERKELEY
JEFF-ERSON
HAMPSHIRE
MINERAL
HARDY
GRANT
PENDLETON
POCAHONTAS
NICHOLAS
GREENBRIER
FAYETTE
RALEIGH
SUMMERS
MONROE
MERCER
WYOMING
MCDOWELL
BRAXTON
WEBSTER
CLAY
ROANE
KANAWHA
JACKSON
PUTNAM
LINCOLN
BOONE
LOGAN
MASON
CABELL
WAYNE
MINGO
Bureau for Public Health
Division of Surveillance and Disease Control
West Virginia HIV/AIDS/STD Program
July 2007

Map 11.3

Directory of HIV/AIDS/STD Surveillance and Prevention Staff Phone Numbers: (304)558-2950 (800)642-8244		
Name	**Title**	**E-mail**
Caroline Williams, M.D.	Director	Carolinewilliams@wvdhhr.org
Susan Hall, M.A.	Assistant Director	Susanhall@wvdhhr.org
HIV/AIDS Surveillance		
Mark Shahbandy	HARS Adminstrator	MarkShahbandy@wvdhhr.org
Kaluwa Hype Schoen, R.N.	HIV/AIDS Surveilance Nurse	KaluwaSchoen@wvdhhr.org
Vacant	HIV/AIDS Surveilance Nurse	N/A
HIV/AIDS Prevention		
Beverly Harmon	HIV/AIDS/STD Program Secretary	BeverlyHarmon@wvdhhr.org
HIV/AIDS Educators:		
Chuck Hall	Training Coordinator, Correctional Facilities	ChuckHall@wvdhhr.org
Jodie Layden, M.S.	Women at Risk, Substance Abuse	JodieWaldron@wvdhhr.org
Nils Haynes	Minorities, Substance Abuse	NilsHaynes@wvdhhr.org
Chuck Anziulewicz	Media Relations, MSM	ChuckAnziulewicz@wvdhhr.org
STD Surveillance/Prevention		
Vicki Hogan, M.P.H.	HIV/AIDS/STD Program Epidemiologist	VickiHogan@wvdhhr.org
Kenneth Gould	DIS Supervisor	KennethGould@wvdhhr.org
John Armstrong	Disease Intervention Specialists(Region 1)	JohnArmstrong@wvdhhr.org
Vacant	Disease Intervention Specialists(Region 2)	N/A
Vacant	Disease Intervention Specialists(Region 3)	N/A
Dianna Ryan, M.A.	Disease Intervention Specialists(Region 4)	DiannaRyan@wvdhhr.org
John Gundling	Disease Intervention Specialists(Region 5)	JohnGundling@wvdhhr.org
Matt Eakle	Disease Intervention Specialists(Region 6)	MattEakle@wvdhhr.org
Chuck McConnell	Disease Intervention Specialists(Region 7)	ChuckMcConnell@wvdhhr.org
Allan Zipf, M.S.	Disease Intervention Specialists(Region 8)	AllanZipf@wvdhhr.org
Sandra Graham, B.S., R.N.	Adult Viral Hep C Prevention Coordinator	Sandragraham@wvdhhr.org
Vacant	Programmer	N/A
Betty Lou Slawter	Office Assisstant 3	BettySlawter@wvdhhr.org
Barbara Thacker	STD Program Secretary	BarbaraThacker@wvdhhr.org

Table 11.1

West Virginia HIV/AIDS Update

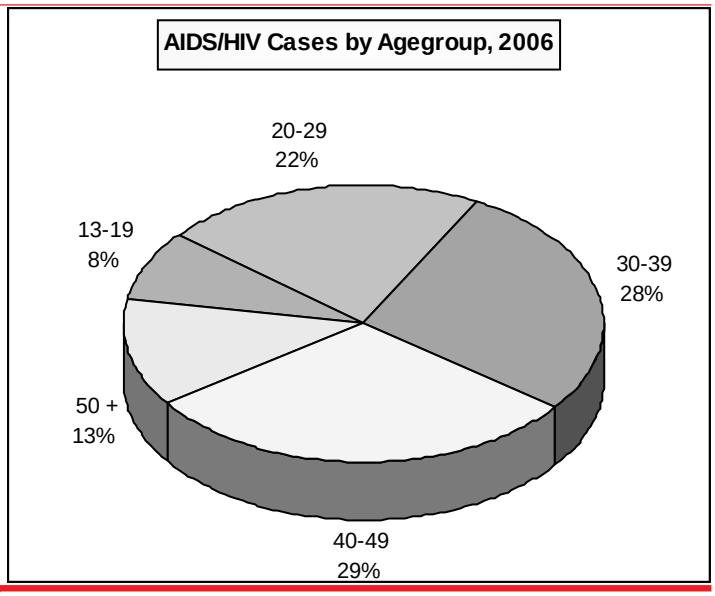
A Glance at the HIV Epidemic

West Virginia HIV/AIDS Update

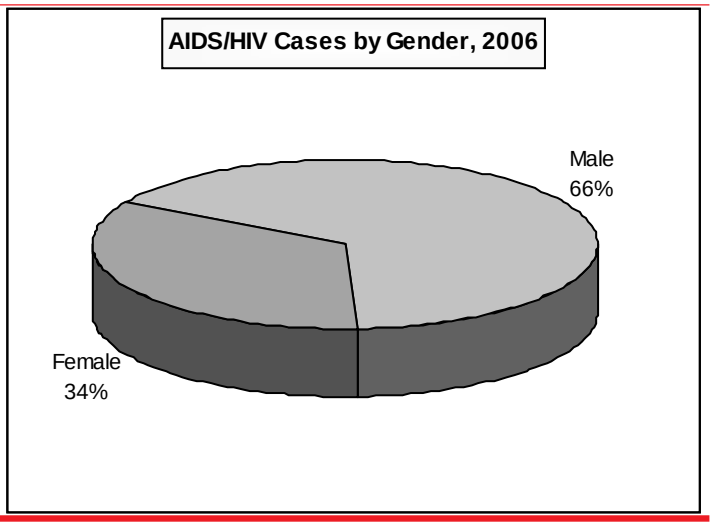
A Glance at the HIV Epidemic

New HIV Infections
There are an estimated 125 persons who are newly diagnosed with HIV infection, including AIDS, each year in West Virginia.

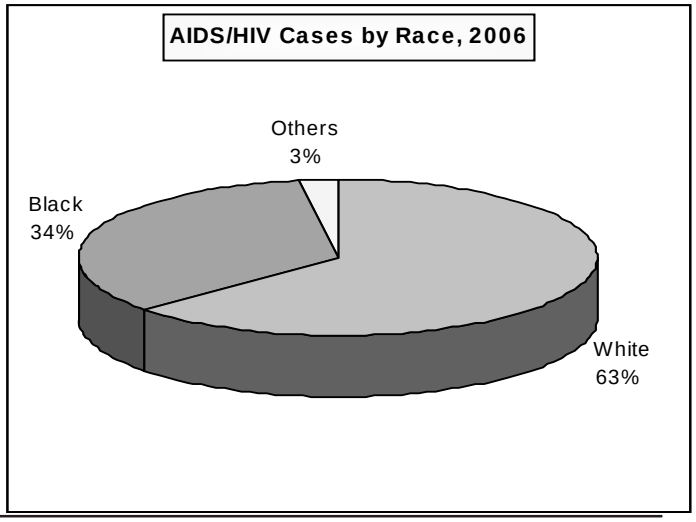
♦ **By Age Group**, 32% of new HIV infections each year occur among 40-49 age group followed by 28% among 20-29 and 23% among 30-39 age groups.



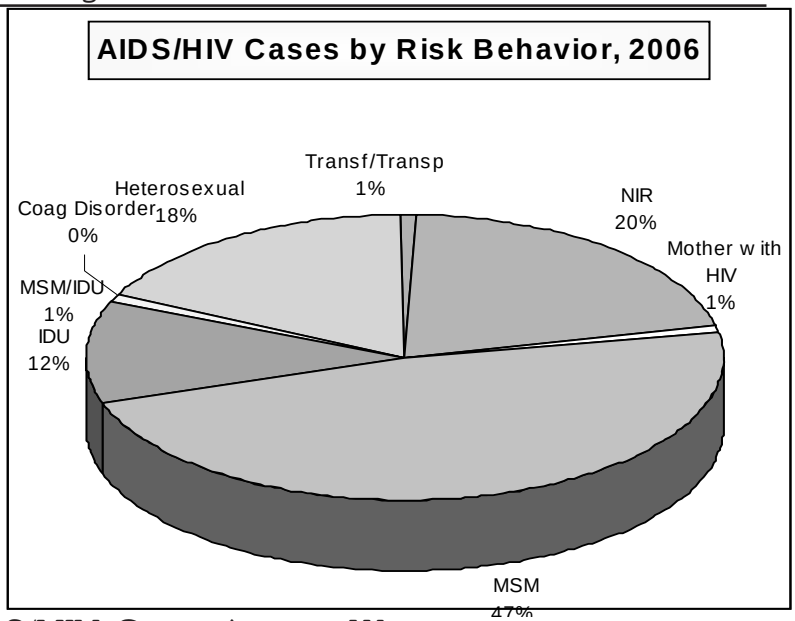
♦ **By Gender**, 80% of new HIV infections each year occur among men, although women are also significantly affected (20%).



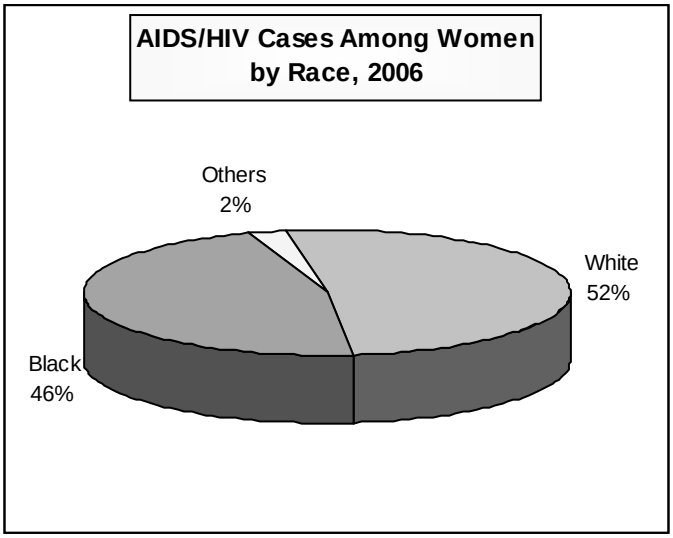
♦ **By Race**, 83% of new HIV infections each year occur among whites and 15% among blacks, though they only represent only 3% of West Virginia's population. Other/unknown comprise 2% of new infections, and represent 2% of the state's population.

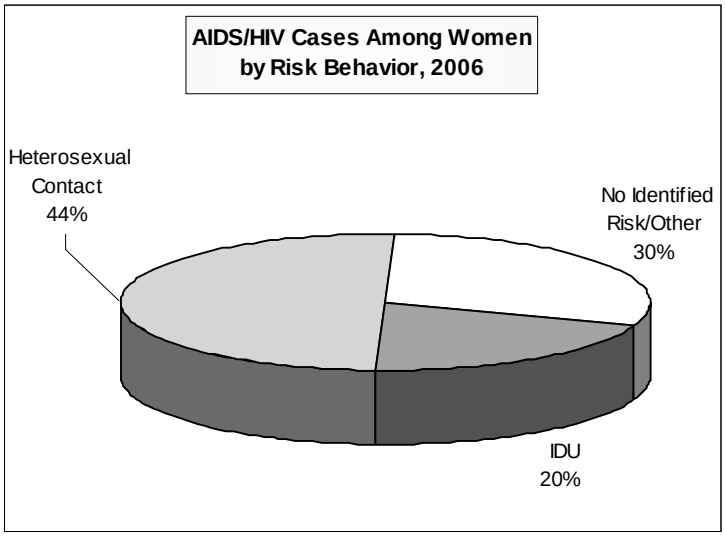


♦ **By Risk**, men who have sex with men represent the largest proportion of new infections (52%), followed by heterosexual contact and injecting drug users accounting for 18% and 14% respectivily.

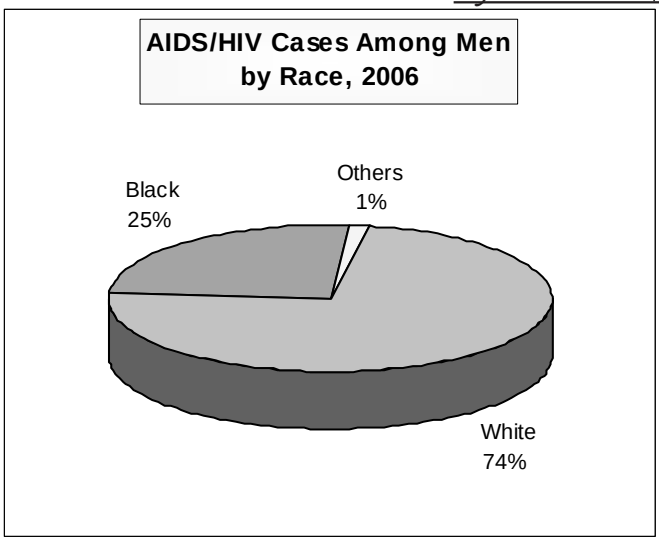


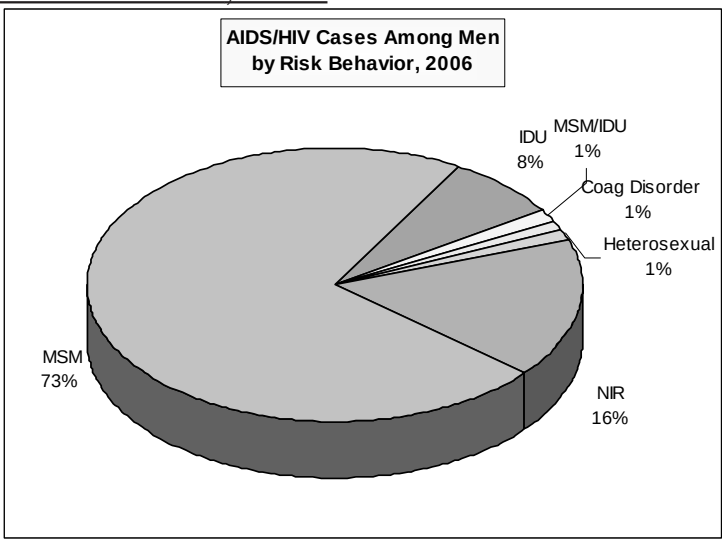
West Virginia AIDS/HIV Cases Among Women by Race and Risk Behavior, 2006



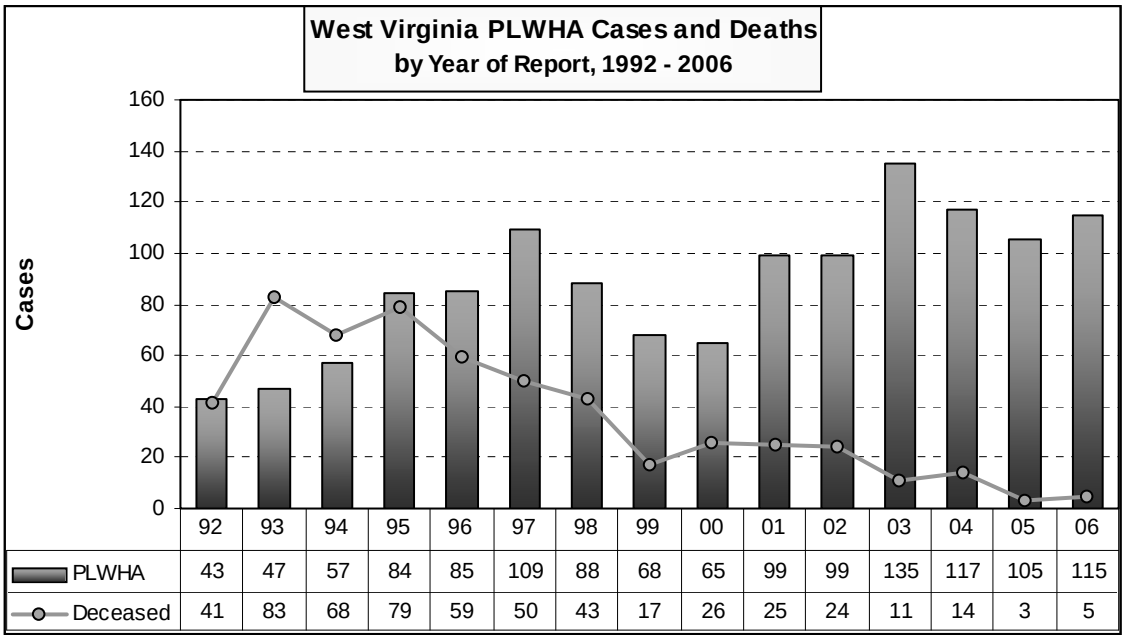


West Virginia AIDS/HIV Cases Among Men by Race and Risk Behavior, 2006



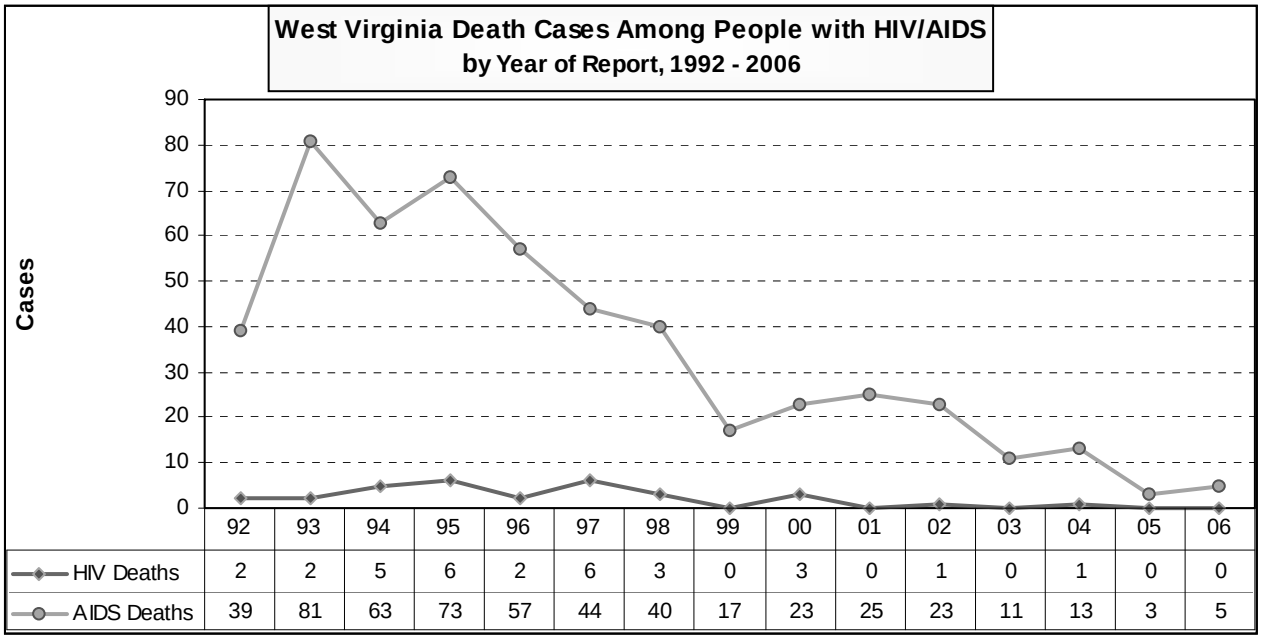


West Virginia People Living with HIV/AIDS through December, 2006



	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06
PLWHA	43	47	57	84	85	109	88	68	65	99	99	135	117	105	115
Deceased	41	83	68	79	59	50	43	17	26	25	24	11	14	3	5

As of December 2006, 1,387 persons have been diagnosed and reported living with HIV/AIDS in West Virginia. Of these, 1,036 are men and 351 are women. Most persons (758) are ages 20-39 and 64 are children and teenagers under 20 years. By race/ethnicity, 67% of persons living with HIV/AIDS are whites, 30% are blacks, and 3% are other/unknown.



	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06
HIV Deaths	2	2	5	6	2	6	3	0	3	0	1	0	1	0	0
AIDS Deaths	39	81	63	73	57	44	40	17	23	25	23	11	13	3	5

Since the begining of the epidemic (1984), 799 deaths among persons with HIV/AIDS were reported through December 2006. The number of deaths among persons with HIV/AIDS has decreased each year, (81in 1993 vs. 3 in 2006) largely due to new HIV treatments.

GLOSSARY OF TERMS

GLOSSARY OF TERMS

ADAP AIDS Drug Assistance Program - funding program through Title II of the Ryan White Care Act to provide for medications for the treatment of HIV disease. Program funds may also be used to purchase health insurance for eligible clients, and to pay for services that enhance access, adherence, and moni toring of drug treatments.

AIDS Acquired Immune Deficiency Syndrome - late stage of HIV infection characterized by break down of the immune system. Individuals with documented HIV infection will be reported as AIDS cases if they meet CDC's AIDS case definition. These immunologic criterias are (CD4 T-lymphocyte count <200 or <14%) or if the patient becomes ill with one of 26 AIDS-defining conditions called Opportunistic Infection (OI).

APC AIDS Prevention Center

ART Anti-Retroviral Therapy - indicates that a patient is on any anti-retroviral drug or drugs for HIV infection.

Asymptomatic
Neither causing nor exhibiting symptoms

CADR Care Act Data Report -
Aggregate service-level report (to HRSA) required of all Ryan White Title programs to track program services, populations, and expenditures.

CAREWare
Computer software tool designed by HRSA to produce the CADR report for Ryan White programs.

CBO Community-Based Organization

CD4 T-lymphocyte Type of white blood cell that coordinates a number of important immunologic functions. These cells are the primary targets of HIV. Severe declines in the number of these cells indicate progression of an immunologic disease. When the count of these cells reaches <200/uL or 14%, the HIV-infected patient is classified as having progressed to AIDS.

CDC U.S. Centers for Disease Control and Prevention - agency under the U.S. Department of Health and Human Services. Located in Atlanta, GA. Mission: to promote health and quality of life by preventing and controlling disease, injury, and disability.

Chlamydia
Chlamydial infection (infection with Chlamydia trachomatis bacteria). To meet the surveillance case definition, all reported cases must be confirmed by laboratory diagnosis: either isolation of C. trachomatis by culture or by detection of antigen or nucleic acid. Chlamydial infection is a reportable disease in West Virginia.

CT Infection with Chlamydia Trachomatis

CTS Counseling and Testing System - a national CDC program administered in West Virginia by the West Virginia HIV/AIDS/STD Program to provide HIV counseling and testing services at local health depart ments and CBOs across the state. All patients are asked a series of questions on reasons for testing and risk behaviors. All samples are sent to the State Laboratory for testing and data entry. State results are aggregated with national data.

Denominator
The divisor in a fraction. (In the fraction 1/8, 8 is the denominator). With respect to disease rates and proportions, it is generally the number of people in the population at-risk for having the disease (a smaller number, found in the numerator, actually will have the disease).

DIS Disease Intervention Specialist - state government employee who interviews reported

DIS Disease Intervention Specialist. Staff that are trained to locate and counsel infected patients andtheir partners, draw blood for testing, and collect interview data on risk behaviors and partners.

Early Latent Syphilis Also 'EL'.
Third stage of syphilis infection lasting from the end of secondary syphilis through one year after initial infection. The patient is free of symptoms but remains infectious to sexual partners during this phase. Early latent refers only to cases for whom likely transmission within the past year can be documented. Patients at this stage are often identified through screening or contact tracing of known cases. If left untreated, the disease will progress to late latent syphilis.

Early Syphilis
Primary, secondary, and early latent syphilis cases (also PSEL).
These stages represent all of the phases during which the infection can be transmitted sexually, although infectiousness drops off considerably during the early latent phase. Often reported separately from later stages of syphilis because these stages represent infections acquired less than one year prior to diagnosis and are targeted by public health interventions.

EL Early Latent Syphilis

ELISA
Enzyme-Linked immunoassay - initial screening test for HIV infection. Highly sensitive. If this test is positive, the sample will then be tested with the more specific confirmatory test the Western Blot. If this test is negative, the result is returned as negative. Alternative name: EIA.

Epidemiology
The study of the distribution and determinants of health related events in specified populations, and the application of this study to the control of health problems.

FDA Food and Drug Administration

GC Infection with Neisseria Gonorrhoeae. See Gonorrhea.

Genital Herpes
A common sexually transmitted disease resulting from infection with HSV types 1 or 2 (see HSV) and characterized by painful genital ulcers. Genital herpes is not a reportable disease in West Virginia. See HSV.

Gonorrhea
Infection with Neisseria gonorrhoeae. To meet the surveillance case definition, laboratory diagnosis may occur by demonstrating the presence of gram-negative diplococci in a clinical sample or by detection of N. gonorrhoeae antigen or nucleic acid. Gonorrhea is a reportable disease in West Virginia.

Granuloma
A sexually transmitted disease characterized by ulceration of the skin and inguinale lymphatics of the genital and perianal area. Granuloma inguinale is a reportable disease in West Virginia.

HAART
Highly Active Anti-Retroviral Therapy Indicates that a patient is on a specific combination of 3 or more anti-retroviral drugs for HIV infection.

HARS
HIV/AIDS Reporting System - the computer data system developed by the CDC that houses information on HIV-infected persons at the WV HIV/AIDS/STD Program.

HAV Hepatitis A Virus - A vaccine-preventable viral infection transmitted by the fecal/oral route.

HBV Hepatitis B Virus - A vaccine-preventable viral infection transmitted by sex, blood products, or shared injection equipment. HBV infection is a reportable condition in West Virginia.

HCV Hepatitis C Virus - A viral infection transmitted by sex, blood products, or shared injection equipment. There is currently no vaccine available. Acute HCV infection is a reportable condition in West Virginia.

HIV Human Immunodeficiency Virus - the virus that causes AIDS. To meet the case definition, infection must be confirmed by specific HIV antibody tests (screening test followed by confirma test) or virologic tests. In children under 18 months of age, antibody tests may not be accurate so confirmation by virologic tests is required.

HPV Human Papillomavirus - a group of viruses including over 100 different strains, 30 of which are sexually transmitted. Many strains cause no symptoms at all while others are associated with genital warts and others with cervical cancer in women. HPV infection is not a reportable condition in West Virginia.

HRSA Health Resources & Services Administration - agency of the U.S. Department of Health and

Human Services. Mission: to assure the availability of quality health care to low-income, uninsured, isolated, vulnerable and special needs populations and to meet their unique health care needs. HRSA administers the Ryan White Care Act programs.

HSV Herpes Simplex Virus (Type 1 = HSV-1 and Type 2 = HSV-2).

IDU Injecting drug user.

Incidence
Measurement of the number of new cases of disease that develop in a specific population of individuals at risk over a specific period of time (often a year). With respect to HIV, the closest we can come to this is reporting of newly diagnosed cases which may or may not represent newly infected individuals. Incidence measures are most often used to assess the success of prevention efforts and the progress of epidemics.

KFF Kaiser Family Foundation (www.kff.org)

Late Syphilis
Syphilis infections that have progressed beyond one year past the initial infection. Patients in late syphilis are not considered to be infectious to sexual partners, but women can pass the infection to their new borns well into the late stages. For the purposes of this report, 'late syphilis' includes late latent syphilis (asymptomatic, infection probably > 1 year prior), latent of unknown duration (asymptomatic, unable to document likely infection in last year), late with symptoms, and neurosyphilis.

Mean Mathematical average. Example: the mean of 5 numbers is the sum of the five numbers divided by five: (a+b+c)/5.

Medicaid
A federally-aided, state-operated and administered program authorized by Title XIX of the Social Security Act which provides medical benefits for qualifying low-income persons in need of health and medical care. Subject to broad federal guidelines, states determine the benefits covered, program eligibility, rates of payment for providers, and methods of administering the program.

Medicare
A federal program that provides basic health care and limited long-term care for retirees and certain disabled individuals without regard to income level. Beneficiaries must pay premiums, deductibles, and coinsurance to receive hospital insurance (Part A) and supplementary medical insurance (Part B). Qualified low-income individuals, called Dual Eligibles, may receive assistance through Medicaid to pay for cost-sharing. (Source of definition: kff.org)

Morbidity
The extent of illness, injury, or disability in a defined population. It is usually expressed in general or specific rates of incidence or prevalence. (Source of definition: kff.org)

Mortality
Death. The mortality rate (death rate) expresses the number of deaths in a unit of population within a prescribed time and may be expressed as crude death rates (e.g., total deaths in relation to total population during a year) or as death rates specific for diseases and, sometimes, for age, sex, or other attributes. (Source of definition: www.kff.org)

MSM Men who have sex with men.

MSM/IDU
Men who have sex with men and also report injecting drug use.

Neurosyphilis
Devastating stage of syphilis affecting some untreated patients. Outcomes include shooting pains in the extremities, blindness, deafness, paralysis, and death.

NGU Nongonococcal urethritis - a clinical diagnosis of exclusion involving evidence of urethral infection or discharge and the documented absence of

NIR No identified risk reported

Numerator
The dividend in a fraction. (In the fraction 3/4, 3 is the numerator). With respect to disease rates and proportions, it is generally the number of people with the disease.

OI Opportunistic Infection

P & S Primary and secondary syphilis cases. These earliest stages of syphilis are the most highly infectious and also represent cases acquired within the last year. They are often reported separately from other stages of syphilis because they most accurately represent disease incidence and have the greatest impact on continued spread of the disease.

PCP Pneumocystis carinii pneumonia. One of the 26 AIDS-defining opportunistic infections.

PCRS Partner Counseling & Referral Services conducted by the HIV/AIDS/STD Program's Disease Intervention Specialists (DIS) for persons newly diagnosed with HIV or syphilis. Data collected are maintained in a local stand alone computer system using STD-MIS.

PLWA
People Living With AIDS

PLWH
People Living With HIV

PLWHA
People Living With HIV/AIDS

Prevalence
Total number of cases of a specific disease in existence in a given population at a particular point in time

Prophylaxis
Prevention of disease; preventive treatment

Protease
An enzyme that HIV uses to make new copies of itself inside infected cells

Protease Inhibitor
A drug that stops protease from making new copies of HIV that can infect other cells

STD-MIS
Sexually Transmitted Disease

Rate A proportion that specifies a time component. For example, the number of new cases of disease that developed over a certain period of time divided by the eligible at-risk population for that time period. Note, many diseases are rare enough that if they were expressed as percentages, the numbers would be very small and confusing. For this reason, the denominators for disease rates are often converted to 100,000 so that the numerators can be expressed in terms of whole numbers. Example:50 cases out of 222,000 at-risk population per year = 50/222,000 = 23/100 = 23%. This is difficult to think about because it involves both decimals and percentages. Converted to a denominator of 100,000, this becomes 23/100 or 23/100,000 per year.

Ratio The value obtained by dividing one quantity by another. Rates and proportions are types of ratios.

Ryan White CARE The Ryan White Comprehensive AIDS Resources Emergency (CARE) Act
Act of 1990 (Public Law 101-381) provides funding to cities, states, and other public or private nonprofit entities to develop, organize, coordinate and operate systems for the delivery of health care and support services to medically underserved individuals and families affected by HIV disease. The CARE Act was reauthorized in 1996 and 2000.
(source of definition: www.kff.org)

Ryan White CARE Federal grants to all 50 states, the District of Columbia, Puerto Rico, Guam,

Percentage

A type of proportion in which the denominator is set at 100. For example, if 5 people out of an at-risk population of 50 have a disease, the proportion can be converted to a percentage by setting the denominator at 100: 5/50 = 10/100 = 10%. Any proportion can be converted to a percentage.

Prevalence

Measurement of the number of total cases of disease that exist in a specific population of indi viduals at risk at a specific instant in time (note that an 'instant in time' can be a single day or even a whole year). With respect to HIV, this is generally presented as the number of persons living with HIV. Prevalence measures are most often used to assess the need for care and support services for infected persons.

Primary Syphilis

Earliest stage of syphilis, characterized by the presence of one or more painless ulcers and lasting 10-90 days. At this stage the patient is highly infectious to sexual partners. If untreated, the infection will roceed to secondary syphilis.

Secondary Syphilis

Second stage of syphilis, characterized by a rash that does not itch, swollen glands, fatigue, and other symptoms. Patients at this stage are highly infectious to sexual partners. Symptoms generally appear about 4-10 weeks after the appearance of primary syphilis lesions. If left untreated, the disease will progress to early latent syphilis after 3-12 weeks.

Seropositive

Showing positive results on serological examination; showing a high level of antibody

STD-MIS

Sexually Transmitted Disease - Management Information System , the computer data system developed by the CDC that houses information on patients infected with HIV, syphilis, and other STDs at the WV HIV/AIDS/STD Program.

Surveillance

The ongoing, systematic collection, analysis, and interpretation of health data essential to the planning, implementation, and evaluation of public health practice, closely integrated with timely dissemination of these data to those who need to know.

Western Blot

WB - Confirmatory test for HIV. This test is highly specific, so it is used only as a confirmatory test on all samples positive for the screening test, the ELISA. If both the ELISA and WB are positive, the patient is considered to be HIV-infected.

West Virginia HIV/AIDS/STD Program
2006 Annual Report

Epidemiologic Profile of HIV/AIDS in West Virginia

Bureau for Public Health
Office of Epidemiology & Health Promotion
Division of Surveillance & Disease Control
350 Capitol Street, Room 125
Charleston, WV 25301

Joe Manchin III, Governor
Martha Yeager Walker, Secretary