HIV and AIDS in Maine

Data from the Maine CDC
HIV, STD and Viral Hepatitis Program

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Overview

• The Maine Center for Disease Control and Prevention (formerly the Bureau of Health) collects data for approximately 70 diseases of public health importance, including HIV and AIDS.

• The following slides highlight HIV and AIDS data received through December 31, 2006. Each data slide is followed by a “comments” slide that provides interpretation and analysis.

• Maine physicians and clinical labs are required to report diagnosis of HIV and AIDS to Maine CDC within 48 hours.* Disease reports provide critical public health information; this slide set is one example of how these data are used.

*For more information about reporting requirements, contact Mark Griswold at (207) 287-5193 or mark.griswold@maine.gov
Figure 1: Maine HIV Diagnoses, 1987 to 2006
Comments, Figure 1

- Figure 1 illustrates annual totals of new HIV diagnoses in Maine, spanning the years 1987 to 2006.

- Annual totals of new HIV diagnoses declined steadily from the late 1980s and have remained relatively stable in recent years.

- Fifty-seven new HIV diagnoses were reported during 2006, including 8 females and 49 males. This represents a slight decline from 2005, when a total of 58 cases were reported.

- It is important to note that not all new HIV diagnoses represent new infections. During the past 5 years approximately 40% of people diagnosed with HIV were ill enough to be classified with AIDS within one year of their initial HIV+ test, likely indicating that they’d been infected with HIV for a long while.

- Approximately 1,130 people are estimated to be living in Maine with diagnosed HIV infection. In addition, Maine CDC estimates that 500 persons in Maine may be infected but unaware of their HIV status. The total estimate of people living with HIV in Maine is approximately 1,600.
Figure 2: Maine AIDS Cases and Deaths Among Persons with AIDS, 1984-2006

Diagnoses (total=1,107)
Deaths (total=590)

Note: Data concerning 2006 deaths will be available July, 2007
• Figure 2 illustrates Maine AIDS diagnoses by year of diagnosis from 1984 to 2006, and reported deaths among persons with AIDS from 1984 to 2005. Forty-two people were diagnosed with AIDS in Maine during 2005, with 11 deaths. Thirty-seven AIDS diagnoses were reported as occurring in 2006, although this number may increase because of reporting delays.

• These data do not reflect persons who were diagnosed with AIDS outside of Maine and subsequently moved to the state.

• Since the mid-1990’s, there has been a sustained decrease in both new diagnoses and deaths, with the number of deaths in recent years at its lowest point since the 1980’s. This decrease is due in large part to widespread use of effective medical treatments for HIV disease
Figure 3: Maine AIDS Cases, Deaths and AIDS Prevalence, 1984 to 2005

- Diagnoses (total=1,070)
- Deaths (total=590)
- Prevalence (total=480)

Maine CDC 4/2007
Comments, Figure 3

• Figure 3 shows three trend lines spanning the years 1982 to 2005: the blue line represents new Maine AIDS diagnoses by year of diagnosis; the green line shows annual deaths; and the red line shows the total number of people living with AIDS.

• Each year since 1985 there have been more new AIDS diagnoses than deaths, meaning that the overall number of people living with AIDS has continued to increase over time. These data suggest that there are more people living with HIV/AIDS in Maine than ever before.
Figure 4: People Living with Diagnosed HIV Infection\(^1\), Mode of Transmission (total = 1,124)

Key to abbreviations:
- MSM: males who have sex with males
- IDU: Injection drug users
- **Hetero contact with at-risk partner**: Includes those infected through heterosexual contact with partners known to be MSM, IDU or HIV+.
- **Hetero contact, no at-risk partner disclosed**: heterosexual contact disclosed as sole HIV risk; partner risk factors not known or not Disclosed.

\(^1\)Includes people living with AIDS and confidential HIV tests reported to Maine CDC through 12/2006
Comments, Figure 4

- Figure 4 shows the mode of HIV transmission for people living with diagnosed HIV infection in Maine.

- Approximately 57% of all diagnoses were attributed to male-to-male sexual contact, followed by sharing needles during injection drug use, at 14%. Another 3% of individuals had a dual risk of male-to-male sex and injection drug use.

- Heterosexual sex with an at-risk partner accounted for approximately 11% of infections. Another 8% of individuals reported heterosexual sex with a non-at-risk partner.

- Mode of transmission was unknown or undisclosed for 5% of diagnoses.
Figure 5: People Living with Diagnosed HIV Infection\textsuperscript{1}, Mode of Transmission by Sex

\textbf{Males (total=937)}

\begin{itemize}
  \item MSM 68%
  \item MSM/IDU 4%
  \item IDU 11%
  \item Hetero contact, no at-risk partner 6%
  \item Hetero contact, with at-risk partner 5%
  \item Other 2%
  \item Unknown 4%
\end{itemize}

\textbf{Females (total=187)}

\begin{itemize}
  \item IDU 45%
  \item Unknown 6%
  \item Other 21%
  \item Hetero contact, no at-risk partner 3%
  \item Hetero contact, with at-risk partner 25%
\end{itemize}

\textsuperscript{1}Includes people living with AIDS and confidential HIV tests reported to Maine CDC through 12/2006
Comments, Figure 5

• Figure 5 contains the same information shown in Figure 4, but shows mode of transmission in males and females. The size of each circle illustrates the overall proportion of male and female diagnoses.

• An estimated 83% of people living with diagnosed HIV infection are male and 17% are female. The large proportion of males is due to those infected through male-to-male sex, as well as the fact that a majority of injection drug users living with diagnosed HIV (69%) are male.

• Accordingly, among males, a majority were infected through male-to-male sex, followed by injection drug use. For females, the majority were infected through heterosexual contact with an at-risk partner, followed by injection drug use.
Figure 6: People Living with Diagnosed HIV Infection\(^1\) Race and Ethnicity (total=1,124)

1Includes people living with AIDS and confidential HIV tests reported to Maine CDC through 12/2006
Comments, Figure 6

• Figure 6 shows the race and ethnicity of people living with diagnosed HIV infection in Maine.

• The majority of cases, 95%, were among individuals identified as White. This total includes approximately 5% of individuals identified as White and Hispanic.

• While the non-White and Hispanic population of Maine comprises approximately 3% of the state’s total population (2000 US Census), 15% of people living with diagnosed HIV were from racial/ethnic minority groups. The most prominently represented among these groups is African-Americans, comprising 8% of total diagnoses.
Figure 7: People Living with Diagnosed HIV Infection

Age at First HIV Diagnosis (total = 1,124)

1Includes people living with AIDS and confidential HIV tests reported to Maine CDC through 12/2005
Comments, Figure 7

- Figure 7 shows the age group at HIV diagnosis for people living with diagnosed infection.

- Twenty-one percent of individuals were between 13 and 30 years of age when diagnosed, meaning that many could have been infected while in their teens or early twenties.

- The majority of individuals were thirty or older when diagnosed.

- A small proportion, one percent, were diagnosed with HIV as infants.
<table>
<thead>
<tr>
<th>County</th>
<th>Rate per 100,000 pop</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumberland</td>
<td>147.3</td>
<td>405</td>
</tr>
<tr>
<td>Kennebec</td>
<td>97.5</td>
<td>118</td>
</tr>
<tr>
<td>Androscoggin</td>
<td>97.2</td>
<td>105</td>
</tr>
<tr>
<td>State of Maine</td>
<td>85.1</td>
<td>1,124</td>
</tr>
<tr>
<td>Hancock</td>
<td>82.0</td>
<td>44</td>
</tr>
<tr>
<td>York</td>
<td>76.1</td>
<td>154</td>
</tr>
<tr>
<td>Waldo</td>
<td>72.3</td>
<td>28</td>
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<tr>
<td>Knox</td>
<td>67.9</td>
<td>28</td>
</tr>
<tr>
<td>Penobscot</td>
<td>65.3</td>
<td>96</td>
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<tr>
<td>Washington</td>
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<tr>
<td>Somerset</td>
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<tr>
<td>Lincoln</td>
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<tr>
<td>Sagadahoc</td>
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<td>17</td>
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<tr>
<td>Oxford</td>
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<tr>
<td>Aroostook</td>
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<td>27</td>
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<tr>
<td>Piscataquis</td>
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<td>6</td>
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<tr>
<td>Franklin</td>
<td>26.9</td>
<td>8</td>
</tr>
</tbody>
</table>

1Includes people living with AIDS and confidential HIV tests reported to Maine CDC through 12/2006
Comments, Table 1

- Table 1 shows the estimated prevalence and rate per 100,000 population by county of residence for people living with diagnosed HIV infection in Maine. Counties are listed in rank order by rate. The statewide rate is included in the rank order.

- Three counties, Cumberland, Kennebec and Androscoggin, have rates that are higher than the statewide rate.

- People living with diagnosed HIV reside in all Maine counties.
Figure 8: People Living with Diagnosed HIV Infection\(^1\)
(total = 1,124)

Each dot represents one HIV or AIDS diagnosis. Dots are randomly placed within each county.

\(^1\)Includes people living with AIDS and confidential HIV tests reported to Maine CDC through 12/2006
Comments, Figure 8

- Figure 8 maps data shown previously in Table 1. Each dot on the map represents one person living with HIV or AIDS in Maine, and shows county of residence at diagnosis.

- Dots are randomly placed within each county.

- It is estimated that 1,124 people in Maine have an HIV or AIDS diagnosis.