An Overview of the National HIV/AIDS Strategy

Los Angeles County HIV Prevention Planning Committee
November 4, 2010

Mario J. Pérez, Director
County of Los Angeles
Department of Public Health
Office of AIDS Programs and Policy
“Right now, we are experiencing a domestic epidemic that demands a renewed commitment, increased public attention, and leadership.”

“I look forward to working with Congress, State, tribal and local governments, and other stakeholders to support the implementation of a Strategy that is innovative, grounded in the best science, focuses on the areas of greatest need, and that provides a clear direction for moving forward together.

-- President Obama
Key NHAS Figures

- 575,000 American lives lost
- 56,000 new U.S. infections per year
- 1,100,000 Americans living with HIV
- 50% of people in U.S. know someone with HIV
- 375,000 HIV infections averted
- A new HIV infection every 9 ½ minutes
- $19.2 billion annual domestic investment
- 1 in 5 PLWH are unaware of their status
Key NHAS Figures

- 75% of cases are among men; majority are gay and bisexual men
- 25% of cases are among women, and disease disproportionately impacts women of color
- HIV diagnosis rate for Black women is 19 times the rate for White women
- 25% of new infections among 13-29 year olds
- 24% of PLWH are 50 years or older; 15% of new cases among this group
County of Los Angeles

Square Miles: 4,086
Population¹: 10.3 Million

Latino/a 47.0%
White 28.9%
Asian/PI 12.6%
African-American 9.0%
Native American 0.3%

Proportion of California Population²: 29%
Proportion of California AIDS Cases³: 36%
Proportion of U.S. AIDS Cases³: 5%
Living with HIV/AIDS³: 61,700 (Estimated)

¹United Way, Los Angeles (2008)
²U.S. Department of Commerce (2008)
³Los Angeles County HIV Epidemiology Program (2008)
Estimated Number of Persons Living with HIV or AIDS in LAC as of July 2009

*Estimate based on a 1:1 ratio of HIV (non-AIDS) to AIDS cases

**Estimate based on CDC’s 2008 estimate that 21% are unaware of their HIV infection (CDC, 2008)
Estimated Number of Persons Living with HIV and AIDS in LAC

Source: LAC HIV Epidemiology Program, reported as of 12/31/2009.

(1) Estimate that 21.5% of HIV+ in LA County are unaware of their infection; modified from CDC estimate.

(2) Of 6,700 notifications pending investigation, estimate >4,000 to be cases.

(3) Estimate based on a 1:1 ratio of HIV (non-AIDS) to living AIDS cases and includes reported, named, coded, pending and unaware HIV and AIDS cases.
Racial/Ethnic Distribution of Persons Living with AIDS by Service Planning Area* (SPA) in LAC, as of December 2006

Pie Chart of Race/Ethnicity by SPA, 2007

White
African American
Hispanic
Asian
American Indian/Alaska Native

* SPA refers to the SPA of residence at time of AIDS diagnosis. Does not include 810 persons (4%) whose information on race/ethnicity or SPA at time of AIDS diagnosis was unknown.

Data for this map are also presented in Table 19 of this report.

AIDS Cases by Race/Ethnicity and Year of Diagnosis (LAC 1993 – 2006)


* Data are provisional due to reporting delay.
Persons Living with AIDS in LAC
per 1,000 population by Race/Ethnicity

Vision for the NHAS

The United States will become a place where new HIV infections are rare and when they do occur, every person, regardless of age, gender, race/ethnicity, sexual orientation, gender identity or socio-economic circumstance, will have unfettered access to high quality, life-extending care, free from stigma and discrimination.
Three Primary Goals

1. Reduce New HIV Infections
2. Increase Access to Care and Improve Health Outcomes for People Living with HIV
3. Reduce HIV-Related Disparities and Health Inequities

To accomplish these goals, we must achieve a more coordinated national response to the HIV epidemic in the United States.
Goal 1
Reduce New HIV Infections

Plan At–A-Glance

• Intensify HIV prevention efforts in communities where HIV is most heavily concentrated
• Expand targeted efforts to prevent HIV infection using a combination of effective, evidence-based approaches
• Educate all Americans about the threat of HIV and how to prevent it
Percentages of AIDS Cases among Adults and Adolescents, by Race/Ethnicity and Year of Diagnosis 1985–2007—United States and Dependent Areas

Note. Data have been adjusted for reporting delays.
*Hispanics/Latinos can be of any race.
†Includes Asian and Pacific Islander legacy cases.
Reduce New HIV Infections

Anticipated Results

• By 2015, lower the annual number of new infections by 25 percent (~42,000)

To achieve goal, our Nation must:

• Reduce the HIV transmission rate by 30%
• Increase from 79% to 90%, the percentage of people living with HIV who know their status
Reduce New HIV Infections

The Opportunity

- HIV testing
- Effective screening of blood supply
- Screening and treating of expectant mothers during pregnancy
- Minimizing infections from injection drug use
- Advances in HIV therapies
Testing Reason: Late vs. Early Testers

- Late (Tested < 1 yr before AIDS dx)
- Early (Tested >5 yrs before AIDS dx)

Bar chart showing reasons for testing.
Demographic Characteristics of Testers at OAPP-funded Sites in SPA 1

Data Source: HIV Counseling and Testing Data, HIV Resources Information Systems (HIRS), January 1 - December 31, 2007. Data are provisional, numbers are based on tests, not necessarily individuals.
Demographic Characteristics of Testers at OAPP-funded Sites in SPA 2

Data Source: HIV Counseling and Testing Data, HIV Resources Information Systems (HIRS), January 1 - December 31, 2007. Data are provisional, numbers are based on tests, not necessarily individuals.
Demographic Characteristics of Testers at OAPP-funded Sites in SPA 3

Data Source: HIV Counseling and Testing Data, HIV Resources Information Systems (HIRS), January 1 - December 31, 2007. Data are provisional, numbers are based on tests, not necessarily individuals.

Legend

HCT Sites
- agency
- drex
- mobile
- other
- store front

New Positive Tests
- < 5
- >= 5

Source: HIRS 2007
Demographic Characteristics of Testers at OAPP-funded Sites in SPA 4

Data Source: HIV Counseling and Testing Data, HIV Resources Information Systems (HIRS), January 1 - December 31, 2007. Data are provisional, numbers are based on tests, not necessarily individuals.
Demographic Characteristics of Testers at OAPP-funded Sites in SPA 5

Data Source: HIV Counseling and Testing Data, HIV Resources Information Systems (HIRS), January 1 - December 31, 2007. Data are provisional, numbers are based on tests, not necessarily individuals.

Legend

<table>
<thead>
<tr>
<th>HCT Sites</th>
<th>New Positive Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>agency</td>
<td>&lt; 5</td>
</tr>
<tr>
<td>d rex</td>
<td>&gt;= 5</td>
</tr>
<tr>
<td>mobile</td>
<td></td>
</tr>
</tbody>
</table>

Source: HIRS, 2007
Demographic Characteristics of Testers at OAPP-funded Sites in SPA 6

Data Source: HIV Counseling and Testing Data, HIV Resources Information Systems (HIRS), January 1 - December 31, 2007. Data are provisional, numbers are based on tests, not necessarily individuals.
New Positive Tests by Zip Code and HCT Sites, SPA 6, 2007

Legend

- **HCT Sites**
  - agency
  - drex
  - mobile
  - other
  - store front

- **New Positive Tests**
  - < 5
  - 5 - 6
  - >= 7

Source: HIRS, 2007
Demographic Characteristics of Testers at OAPP-funded Sites in SPA 6

Data Source: HIV Counseling and Testing Data, HIV Resources Information Systems (HIRS), January 1 - December 31, 2007. Data are provisional, numbers are based on tests, not necessarily individuals.
New Positive Tests by Zip Code and HCT Sites, SPA 6, 2007

Legend

HCT Sites
- agency
- drex
- mobile
- other
- store front

New Positive Tests
- < 5
- 5 - 6
- >= 7

Source: HIRS, 2007
Demographic Characteristics of Testers at OAPP-funded Sites in SPA 7

Race/Ethnicity
- African/Black: 8.7%
- American/Indian/Alaskan Native: <1%
- Asian/Pacific Islander: 4.3%
- Latino(a): 74.3%
- White: 11.4%
- Other: 1.2%

Age Group (years)
- <12: <1%
- 12 to 24: 26.8%
- 25 to 34: 34.6%
- 35 to 44: 23.0%
- 45 to 54: 11.0%
- 55+: 4.5%

Data Source: HIV Counseling and Testing Data, HIV Resources Information Systems (HIRS), January 1 - December 31, 2007. Data are provisional, numbers are based on tests, not necessarily individuals.

Legend

HCT Sites
- agency
- drex
- mobile
- other
- store front

New Positive Tests
- < 5
- >= 5

Source: HIRS, 2007
Demographic Characteristics of Testers at OAPP-funded Sites in SPA 8

Data Source: HIV Counseling and Testing Data, HIV Resources Information Systems (HIRS), January 1 - December 31, 2007. Data are provisional, numbers are based on tests, not necessarily individuals.
New Positive Tests by Zip Code and HCT Sites, SPA 8, 2007

Legend

HCT Sites
- agency
- drex
- mobile
- store front

New Positive Tests
- < 5
- ≥ 5

Source: HIRS, 2007
## HIV Positivity & New Positivity Rates by OAPP-funded Testing Programs, 2009

<table>
<thead>
<tr>
<th>Type of Testing Program</th>
<th>Number of HIV Tests</th>
<th>HIV Positivity Rate</th>
<th>HIV New Positivity Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>74,254</td>
<td>784 1.06%</td>
<td>644 0.87%</td>
</tr>
<tr>
<td><strong>Public Health STD Clinics</strong></td>
<td>25,171</td>
<td>203 0.81%</td>
<td>164 0.65%</td>
</tr>
<tr>
<td><strong>Routine Testing</strong></td>
<td>7,643</td>
<td>86 1.13%</td>
<td>81 1.06%</td>
</tr>
<tr>
<td><strong>Testing within Jail Settings</strong></td>
<td>9,631</td>
<td>6 0.06%</td>
<td>3 0.03%</td>
</tr>
<tr>
<td><strong>Targeted Testing Total</strong></td>
<td>31,809</td>
<td>489 1.54%</td>
<td>396 1.24%</td>
</tr>
<tr>
<td><strong>OAPP Subcontracted Agencies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Storefront</em></td>
<td>18,471</td>
<td>280 1.52%</td>
<td>227 1.23%</td>
</tr>
<tr>
<td><em>Mobile Testing Unit Program</em></td>
<td>6,419</td>
<td>73 1.14%</td>
<td>64 1.00%</td>
</tr>
<tr>
<td><em>Multiple Morbidity Mobile Testing Units</em></td>
<td>2,709</td>
<td>35 1.29%</td>
<td>22 0.81%</td>
</tr>
</tbody>
</table>

*Numbers based on available HIV Testing data, January 1 - December 31, 2009, reported to OAPP. Numbers are based on tests, not necessarily individuals.
### HIV Positivity & New Positivity Rates by OAPP-funded Programs, 2009, cont.

<table>
<thead>
<tr>
<th>Type of Testing Program</th>
<th>Number of HIV Tests</th>
<th>HIV Positivity Rate</th>
<th>HIV New Positivity Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td><strong>Targeted Testing Total (cont.)</strong></td>
<td>31,809</td>
<td>489 1.54%</td>
<td>396 1.24%</td>
</tr>
<tr>
<td>Bath Houses and Sex Clubs</td>
<td>1,766</td>
<td>28 1.59%</td>
<td>27 1.53%</td>
</tr>
<tr>
<td>Court Ordered &amp; Drug Expansion Testing Programs</td>
<td>1,797</td>
<td>34 1.89%</td>
<td>22 1.22%</td>
</tr>
<tr>
<td>HIV Clinic Testing</td>
<td>647</td>
<td>39 6.03%</td>
<td>34 5.26%</td>
</tr>
</tbody>
</table>

OAPP funded testing = 40% of all testing in LAC / year

*Numbers based on available HIV Testing data, January 1 - December 31, 2009, reported to OAPP. Numbers are based on tests, not necessarily individuals.*
Goal 2
Increase Access to Care and Improve Health Outcomes for PLWH

Plan At–A-Glance

• Establish a seamless system to immediately link people to continuous and coordinated quality care when they are diagnosed with HIV

• Take deliberate steps to increase the number and diversity of available providers of clinical care and related services for people living with HIV
Increase Access to Care and Improve Health Outcomes for PLWH

Plan At–A-Glance

• Support people living with HIV with co-occurring health conditions and those who have challenges meeting their basic needs, such as housing
Increase Access to Care and Improve Health Outcomes for PLWH

Anticipated Results (By 2015)

- Increase the proportion of newly diagnosed patients linked to clinical care within 3 months of their HIV diagnosis from 65% to 85%
- Increase the proportion of RW clients who are in continuous care* from 73% to 80%
- Increase the proportion of RW clients with permanent housing from 82% to 86%
Mortality and HAART Use Over Time

HIV Outpatient Study, CDC, 1994-2003
Months, between first HIV+ test and AIDS Diagnosis, by Race/Ethnicity, SHAS, LAC, ‘00-’04 (N = 819)

Source: HIV Epidemiology Program
Linked to Care by Gender, 2006-08

- Male (n=592): 67.7%
- Female (n=63): 68.3%
- Transgender (n=24): 54.2%*

*Statistically significant, $p=.05$
Linked to Care by Race/Ethnicity\(^1\), 2006-08

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-American (n=149)</td>
<td>58.4%*</td>
</tr>
<tr>
<td>Asian/Pacific Islander (n=44)</td>
<td>68.2%</td>
</tr>
<tr>
<td>Hispanic/Latino(a) (n=335)</td>
<td>67.8%</td>
</tr>
<tr>
<td>White (n=141)</td>
<td>74.5%</td>
</tr>
</tbody>
</table>

*Statistically significant, \( p = .05 \), \(^1\)Native American/Alaska Native not included due to small sample size
Linked to Care by Age Group, 2006-08

- Age 12-19 (n=19): 78.9%
- Age 20-24 (n=113): 69.9%
- Age 25-34 (n=254): 69.7%
- Age 35-44 (n=210): 66.2%
- Age 45-54 (n=63): 60.3%
- Age 55+ (n=20): 45.0%
Linked to Care by Priority Populations, 2006-08

- Homeless (n=63): 41.3%*
- MSM (n=382): 69.6%
- MSMW (n=67): 65.7%
- MSM/IDU (n=35): 71.4%
- IDU (n=40): 42.5%*
- WASR (n=52): 73.1%

*Statistically significant, p=.05
HIV-positive Individuals\(^1\) Linked to Care\(^2\), 2006-08 by Zip Code

\(^1\)Newly-diagnosed individuals tested at OAPP-funded sites, identified in HIV surveillance data

\(^2\)Matched cases in surveillance data not having a CD4 or viral load laboratory record zip codes with small numbers not included in analysis

Data Source: HIV Epidemiology Program, 2010
HIV-positive Individuals\(^1\) Linked to Care\(^2\), 2006-08 by Zip Code

\(^1\)Newly-diagnosed individuals tested at OAPP-funded sites, identified in HIV surveillance data

\(^2\)Matched cases in surveillance data not having a CD4 or viral load laboratory record, zip codes with small numbers not included in analysis

Data Source: HIV Epidemiology Program, 2010
Increase Access to Care and Improve Health Outcomes for PLWH

The Opportunity

- *The Affordable Care Act*
  - High risk pools available immediately
  - Medicaid expansion (133% FPL)
  - Federal tax credits for uninsured (400% FPL)
  - Ending discrimination based on health conditions

- Ryan White Program and other Federal and State HIV-focused programs
Goal 3
Reduce HIV-Related Disparities and Health Inequities

Plan At-A-Glance

- Reduce HIV-related mortality in communities at high risk for HIV infection
- Adopt community-level approaches to reduce HIV infection in high-risk communities
- Reduce stigma and discrimination against PLWH
Reduce HIV-Related Disparities and Health Inequities

Anticipated Results (By 2015)

• Increase the proportion of HIV diagnosed gay and bisexual men with undetectable VL by 20%
• Increase the proportion of HIV diagnosed Blacks with undetectable VL by 20%
• Increase the proportion of HIV diagnosed Latinos with undetectable VL by 20%
HIV-1 Viral loads among RW Clients

- 14,875 RW clients database had 1 or more medical outpatient (MOP) visit in YR 19.
  - Of that, 12,725 (~86%) had at least one viral load test during that year.

N = 12,725

Source: Casewatch YR 19 (Feb. ’09 – Mar. ’10): Data limited to RW Client w/ 1 or more MOP visit.
Mean Viral Load & Demographics

Overall: 16,798 (72%)

New Infection: 48,967** (47%**)

Old Infection*: 13,547 (74%)

Male*: 17,110 (72%)

Female: 14,258 (71%)

Transgender: 22,759 (69%)

Mean of Most Recent VL (% Undetectable)

Source: Casewatch YR 19 (Feb. ‘09 – Mar. ‘10):
Data limited to RW Client w/ 1 or more MOP visit.
* Indicates reference/comparison group
** Significantly different from reference group (p-value < 0.05)
Mean Viral Load & Demographics

Data limited to RW Client w/ 1 or more MOP visit.
* Indicates reference/comparison group
** Significantly different from reference group (p-value < 0.05)
Mean Viral Load & Risk Behaviors

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean of Most Recent VL</th>
<th>% Undetectable</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSM</td>
<td>17,041 (73%)</td>
<td></td>
</tr>
<tr>
<td>IDU</td>
<td>10,739** (68%)</td>
<td></td>
</tr>
<tr>
<td>MSM/IDU</td>
<td>17,814 (69%)</td>
<td></td>
</tr>
<tr>
<td>Heterosexual*</td>
<td>17,022 (72%)</td>
<td></td>
</tr>
<tr>
<td>Jail w/in 2 Yrs.</td>
<td>27,403** (57%)**</td>
<td></td>
</tr>
<tr>
<td>Jail &gt; 2 Yrs.</td>
<td>21,281** (66%)**</td>
<td></td>
</tr>
<tr>
<td>Ann</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Jail Ever*</td>
<td>15,190 (74%)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Casewatch YR 19 (Feb. '09 – Mar. '10):
Data limited to RW Client w/ 1 or more MOP visit.
* Indicates reference/comparison group
** Significantly different from reference group (p-value < 0.05)
Mean Viral Load & Risk Behaviors

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean of Most Recent VL (%) Undetectable</th>
<th>% Undetectable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug Use (6-24 mo)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Drug Use*</td>
<td>12,900</td>
<td>(62%)</td>
</tr>
<tr>
<td>Retained in Care</td>
<td>11,867</td>
<td>(75%)</td>
</tr>
<tr>
<td>Fell Out of Care*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On ART</td>
<td>16,227</td>
<td>(73%)</td>
</tr>
<tr>
<td>Not on ART*</td>
<td>26,456</td>
<td>(58%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source: Casewatch YR 19 (Feb. ‘09 – Mar. ‘10):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data limited to RW Client w/ 1 or more MOP visit.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Indicates reference/comparison group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>** Significantly different from reference group (p-value &lt; 0.05)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Among RW Clients w/ 1 or more MOP visit, 13,976 (~94%) are on antiretroviral therapy.

N = 13,976

- 76% Undetectable
- 24% VL ≥ 200

Source: Casewatch YR 19 (Feb. ‘09 – Mar. ‘10): Data limited to RW Client w/ 1 or more MOP visit.
CD4 Counts and Viral Load by Race/ Ethnicity, Medical Monitoring Project (MMP), 2007/2008

Most recent CD4 in past 12 months

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>Latino</th>
<th>Black</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-199</td>
<td>10%</td>
<td>6%</td>
<td>9%</td>
<td>12%</td>
</tr>
<tr>
<td>200-499</td>
<td>36%</td>
<td>29%</td>
<td>25%</td>
<td>24%</td>
</tr>
<tr>
<td>500+</td>
<td>45%</td>
<td>38%</td>
<td>24%</td>
<td>27%</td>
</tr>
<tr>
<td>Don't Know</td>
<td>9%</td>
<td>16%</td>
<td>18%</td>
<td></td>
</tr>
</tbody>
</table>

Most recent VL in past 12 months

<table>
<thead>
<tr>
<th></th>
<th>undetect</th>
<th>&lt; 5,000</th>
<th>5,000 - 10,000</th>
<th>&gt; 10,000</th>
<th>Don't know</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>71%</td>
<td>10%</td>
<td>12%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Latino</td>
<td>55%</td>
<td>23%</td>
<td>6%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Black</td>
<td>52%</td>
<td>0%</td>
<td>9%</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 A sample of 237 HIV-infected persons in care in LA
2 A sample of 232 HIV-infected persons in care in LA

Source: HIV Epidemiology Program
Reduce HIV-Related Disparities and Health Inequities

The Opportunity

• *The Affordable Care Act*
• Steps to support treatment adherence
• Research on the causes of differences in health outcomes
• Refocusing our prevention efforts on strategies targeted to high-risk communities
Achieve a More Coordinated National Response to the HIV Epidemic

Plan At-A-Glance

- Increase the coordination of HIV programs across the Federal Government and between Federal agencies and State, territorial, local and tribal governments
- Develop improved mechanisms to monitor and report on progress toward achieving national goals
Achieve a More Coordinated National Response to the HIV Epidemic

The Opportunity

• Enhanced focus on coordinating efforts
  – Across Federal agencies
  – Across all levels of government
  – With external partners
  – Throughout the healthcare system

• Prioritizing enhanced collaboration and accountability
Websites

www.lapublichealth.lacounty.gov/aids
www.WhiteHouse.gov/ONAP
www.WhiteHouse.gov/Presidential-AIDS-Memo
http://www.pacha.gov
http://cdc.gov/hiv/topics/surveillance/incidence.htm
http://cdc.gov/hiv/topics/surveillance/resources/factsheets/transmission.htm
Associated Documents and Related Efforts

- National HIV/AIDS Strategy Federal Implementation Plan
- President’s Memorandum to Federal Agencies
- Community Ideas for Improving the Response to the Domestic HIV Epidemic
- President’s Emergency Plan for AIDS Relief (PEPFAR)
- The Affordable Care Act
Associated Documents and Related Efforts

- President’s National Drug Control Strategy
- Federal Strategic Plan to Prevent and End Homelessness
- Americans with Disabilities Act
- Fair Housing Act
- Rehabilitation Act
Conclusion

1. Resources will always be tight, and we will have to make tough choices about the use of funds
2. PLWH have unique experiences that should be valued and relied upon
3. Communities themselves are best equipped to make difficult trade-offs, priority-setting and resource allocation
4. Continued investment in research is needed
5. A commitment to innovation is needed
Acknowledgments

- Kyle Baker
- Douglas Frye
- Michael Janson
- Jennifer Sayles
- Amy Wohl
Thank You

This presentation is available at:
www.publichealth.lacounty.gov/aids