Race and HIV: When Risky Behaviors Can't Explain HIV Disparities

Findings from the Los Angeles Coordinated HIV/AIDS Needs Assessment (LACHNA)

Min Kim, MPH
Los Angeles County Department of Public Health
Office of AIDS Programs and Policy
Planning and Research Division

County of Los Angeles Public Health

Los Angeles County

Square Miles: 4,086
Population[1]: 10.3 Million

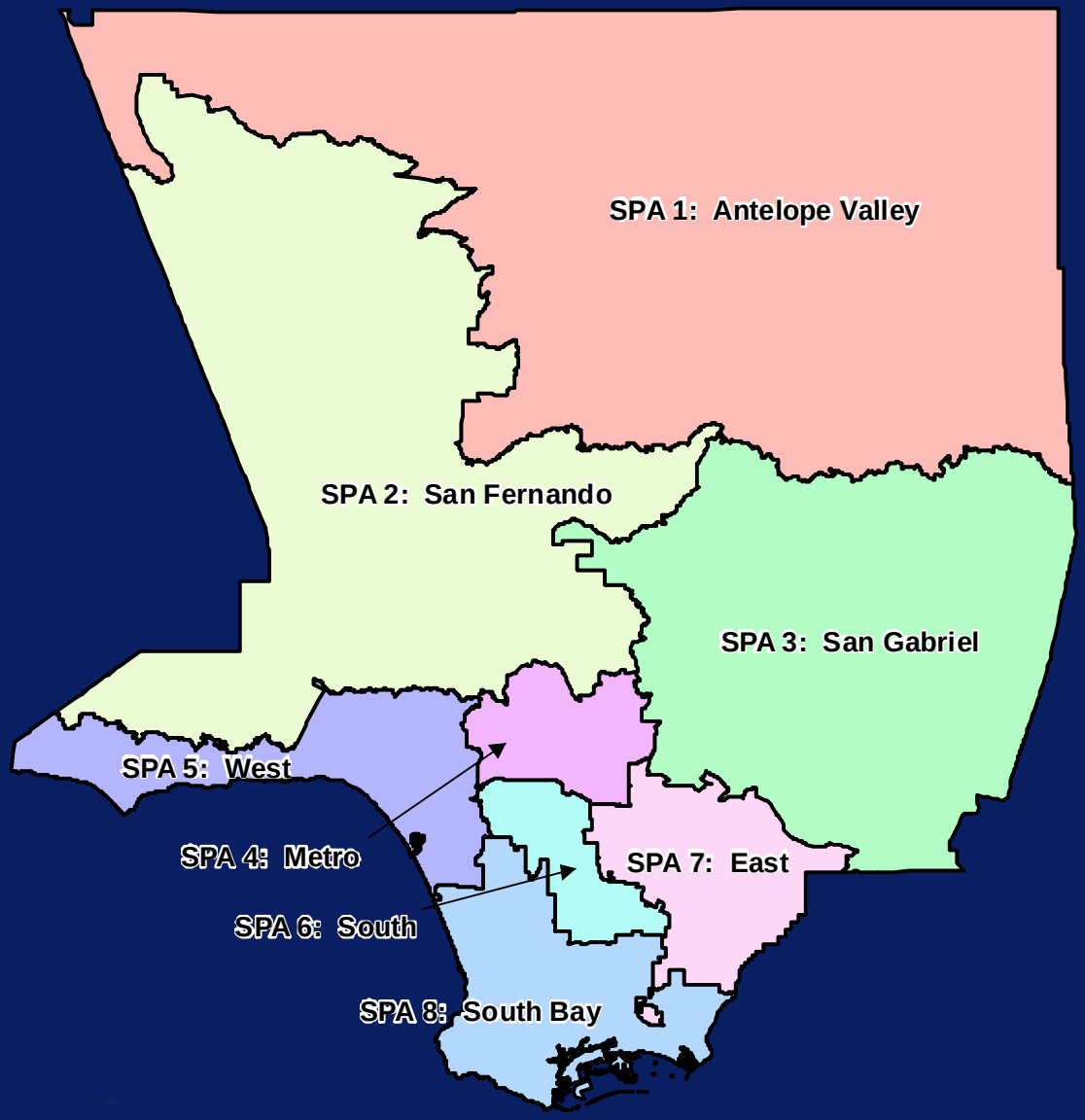
Latino/a	47%
White	28.9%
Asian/PI	12.6%
African-American	9.0%
Native American	0.3%

Proportion of:

- California Population[2]: 29%
- California AIDS Cases[3]: 36%
- U.S. AIDS Cases[3]: 5%

Living with HIV/AIDS[3]:
60,000 (Estimated)

[1]United Way, Los Angeles (2008)
[2]U.S. Department of Commerce (2008)
[3]Los Angeles County HIV Epidemiology Program (2008)



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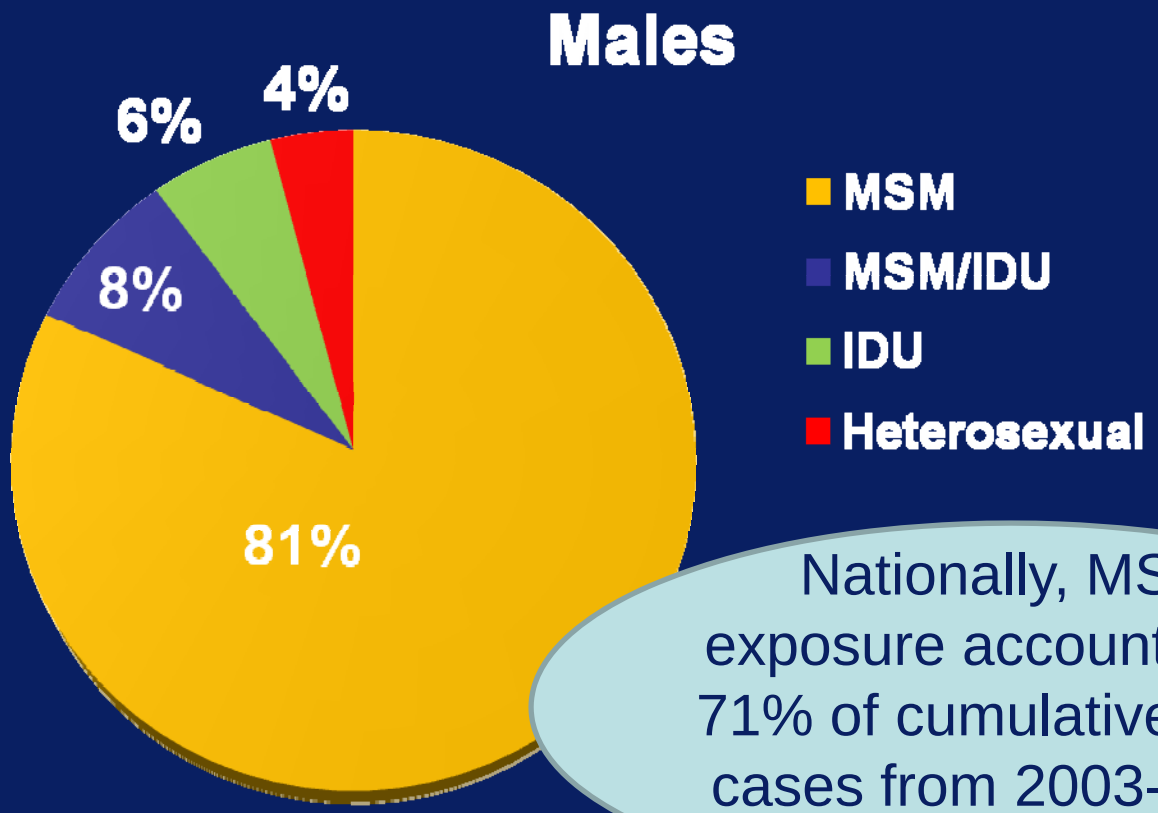
Adjusted Mode of Exposure for Persons Living with AIDS in LAC*



Nationally, MSM exposure accounted for 71% of cumulative AIDS cases from 2003-2007.

•As of December 31, 2007.
Source: *HIV/AIDS Surveillance Summary* , June 2008.

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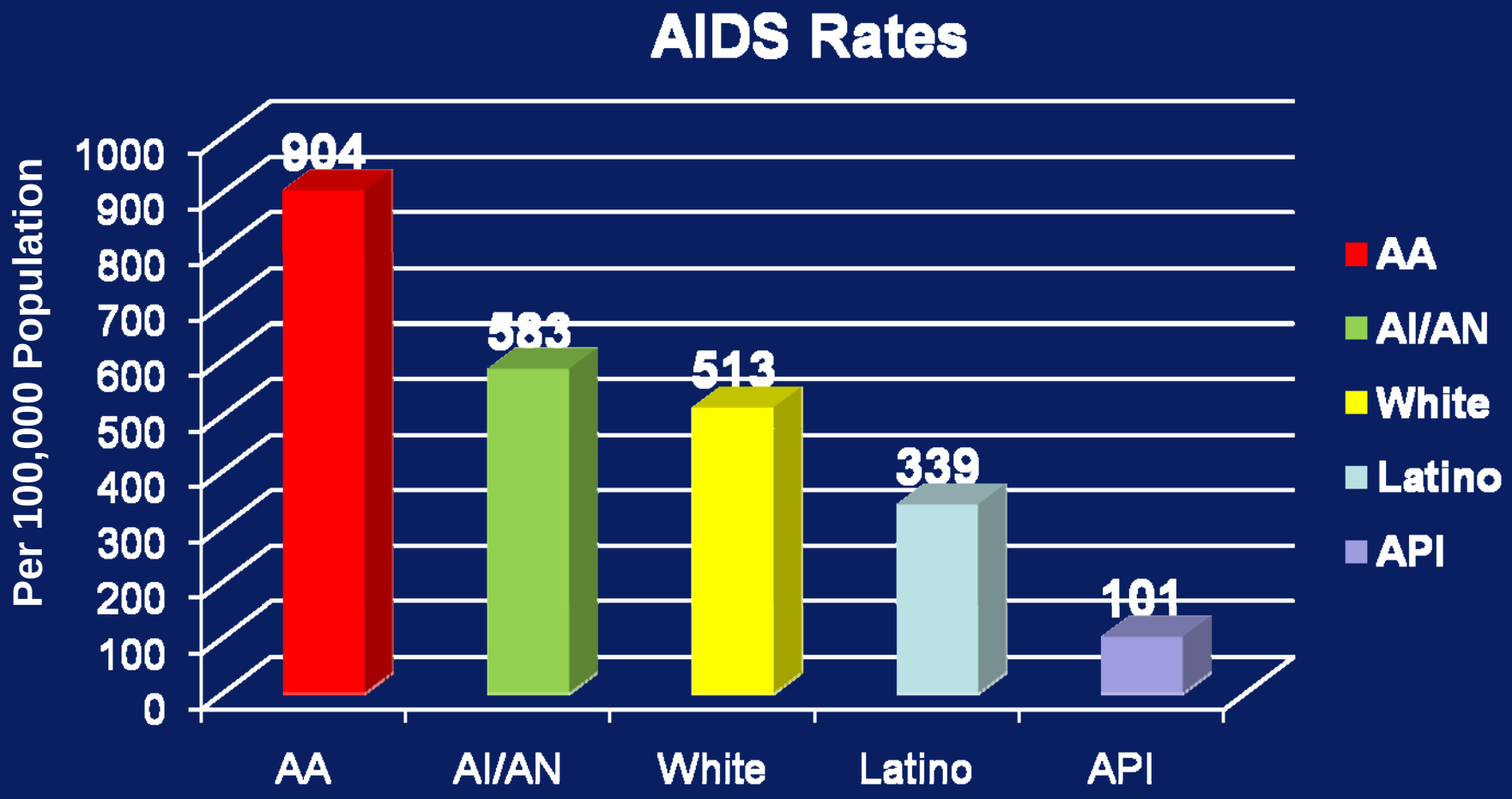
Male AIDS Rates among Persons Living with AIDS in LAC by Race*



* As of December 31, 2008.

Source: *HIV/AIDS Surveillance Summary,* January 2009.

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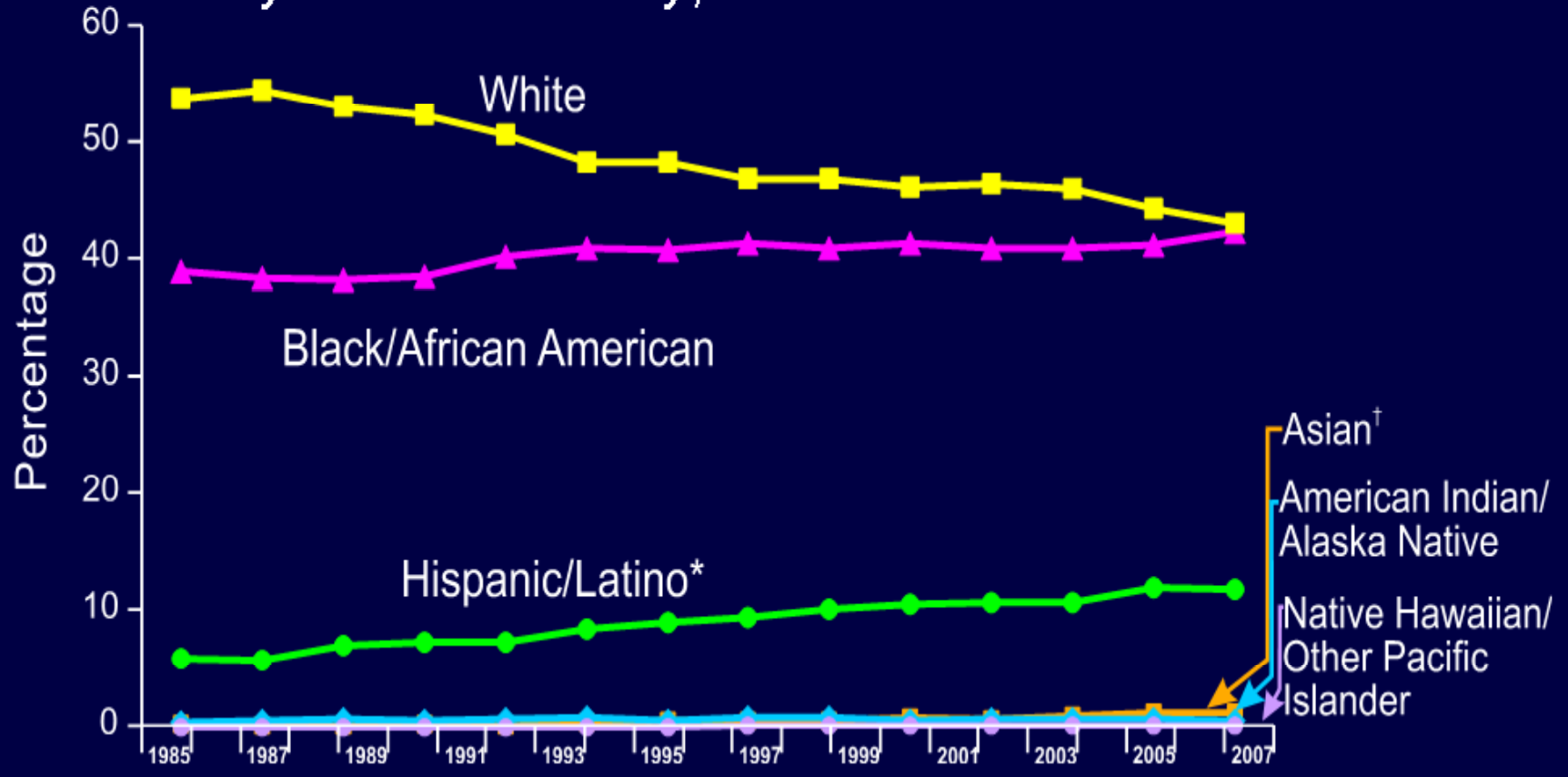
Percentages of Estimated HIV/AIDS Cases among Adult and Adolescent Men Who Have Sex with Men by Race/Ethnicity, 1985–2007—25 States



Note. Data include persons with a diagnosis of HV infection regardless of their AIDS status at diagnosis. Data from 25 states with confidential name-based HIV infection reporting since at least 1994. Data have been adjusted for reporting delays and missing risk-factor information. Data exclude cases among men who had sex with other men and injected drugs.

*Hispanics/Latinos can be of any race.

†Includes Asian and Pacific Islander legacy cases.

Goals and Objectives

- Why are African-American MSM disproportionately impacted by HIV/AIDS?

Goal:

Characterize the effects that individual-level risk behaviors have on HIV risk among African-American MSM, Latino MSM, and White MSM.

Objectives:

Compare HIV risk behaviors

Model HIV status with risk

Hypothesis:

High-levels of individual risk behaviors should result in higher risk for HIV, but other factors are driving the epidemic.

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Survey Development

- Survey developed in collaboration with:
  - Commission on HIV (care planning body)
  - HIV Prevention Planning Committee
  - Office of AIDS Programs and Policy (OAPP)

- Topics included:
  - Demographics
  - HIV Care/Testing
  - Mental Status
  - HIV Knowledge
  - Drug/Alcohol Use
  - Sexual Risk Behaviors
  - Risk Perceptions
  - Oral Health
  - Prevention/Care Service Utilization
  - Health Insurance/ Benefits

Methodology

- Estimated Sample Size: N = 2,085
- One-on-one interview (30-60 minutes)
  - English and Spanish language.
  - Participants compensation ($20-$30 gift card).
- Systematic random sampling (every n^{th} individual approached)
- Verbal consent required

Methodology (cont'd)

- Data collected from June 10 – December 14, 2007
- Eligibility Criteria:
  - 13 years or older
  - Los Angeles County resident
  - Didn't interview before
- Data collection sites included:
  - 75 prevention venues
    - Prevention* surveys (n = 1,196)
  - 46 care venues
    - Care** surveys (n = 679)

TOTAL SAMPLE:
N = 1,888

* Prevention surveys consist of participants who are HIV-negative or unknown status.

** Care surveys consist of HIV-positive participants.

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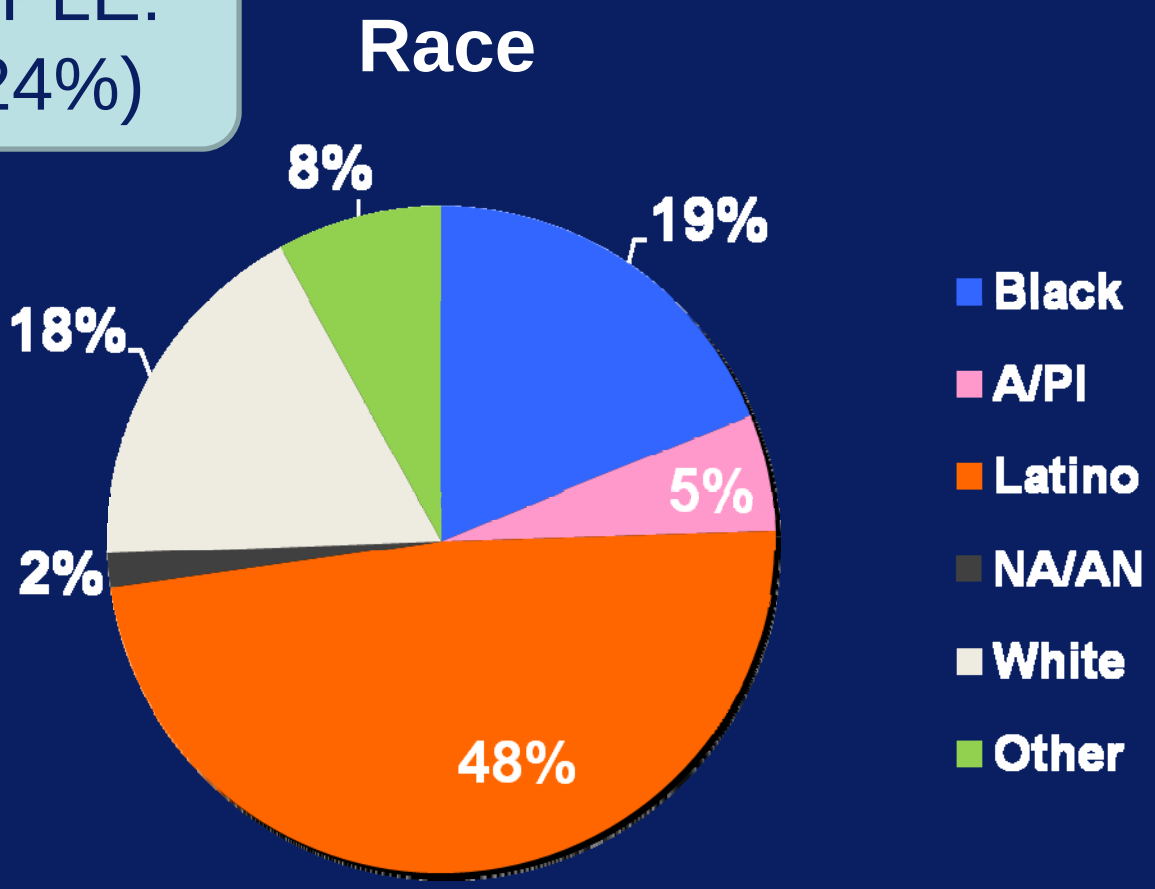
LACHNA MSM* Demographics

MSM SAMPLE:
N = 461 (24%)



* MSM is defined by reported sex with a male or transgender MTF in the past 6 months (includes MSM, MSM/IDU, and MSM/W).

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MSM Demographics cont'd

Characteristic	%	Characteristic	%
Age		**Living Situation**	
13-24	26%	Stable	89%
25-49	65%	Transitional	7%
50+	9%	Homeless	3%
Employment		**Insurance** [1]	
Employed	65%	Private	10%
Unemployed	32%	Public/Benefits	13%
Retired	3%	Neither	77%
Highest Education Completed			
Non H.S. Graduate	10%	College Graduate	26%
H.S. Graduate/GED	61%		

[1] Not mutually exclusive categories.

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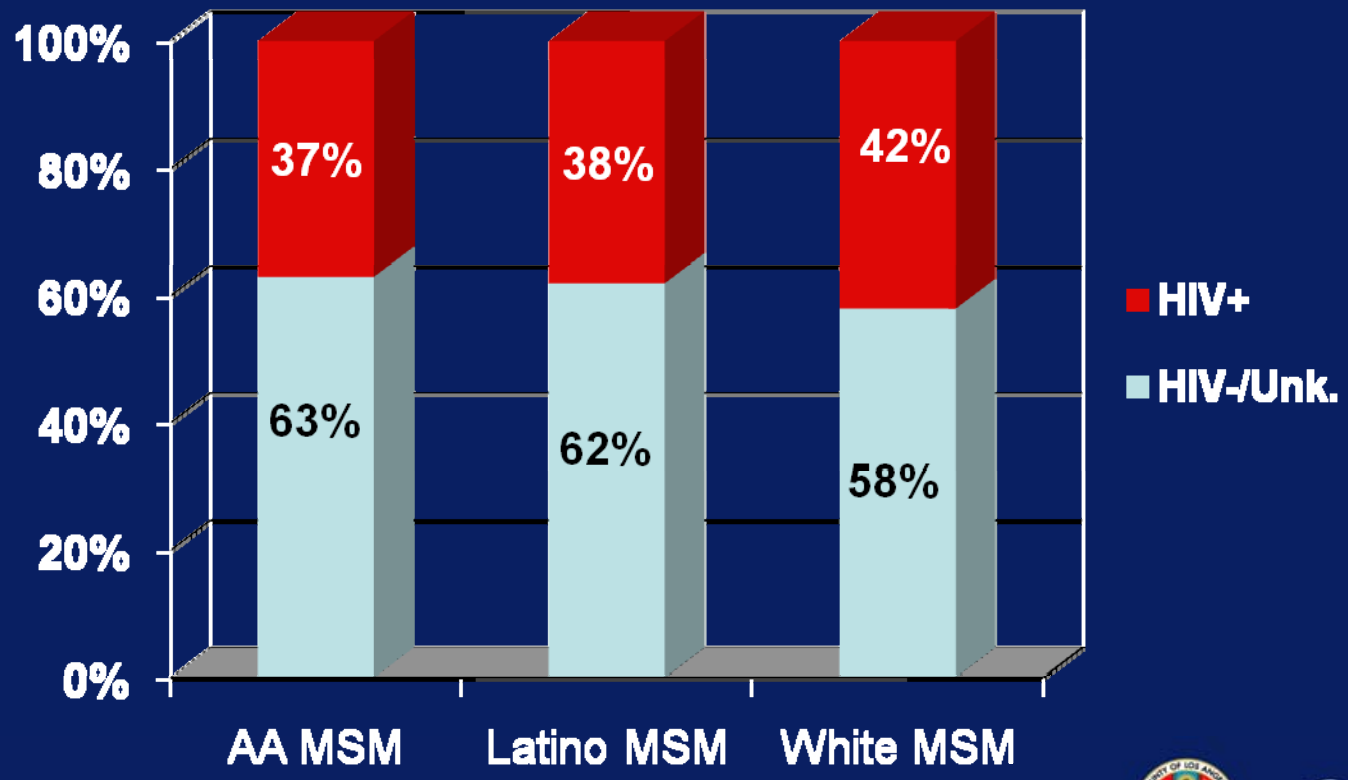
MSM HIV Status Breakdown

MSM (all races): N = 461

- HIV-Negative/Unknown Status - 64%
- HIV-Positive - 36%



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HIV-Negative MSM Risk Profile

Risk Behaviors	AA MSM (n = 49)	Latino MSM (n = 127)	White MSM (n = 41)
Inconsistent Condom Use	20%	27%	34%
Serodiscordant Partner	2%*	17%	17%
Sex while Drunk	47%*	59%	71%
Sex while High (meth)	4%	9%	10%
Sharing Needles	0%	1%	0%
STD Diagnosis	8%	13%	7%
Sex Trade	6%	8%	2%
Any Risk**	**55%***	**75%**	**85%**

* Significantly different from White MSM - reference (p-value < 0.05).

** Any risk is defined as: at least 1 (out of 7) reported risk behaviors.

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HIV-Positive MSM Risk Profile

Risk Behaviors	AA MSM (n = 32)	Latino MSM (n = 84)	White MSM (n = 34)
Inconsistent Condom Use	38%	33%*	59%
Serodiscordant Partner	44%	46%	32%
Sex while Drunk	34%	21%	38%
Sex while High (meth)	6%*	16%	24%
Sharing Needles	3%	1%	0%
STD Diagnosis	19%	12%	12%
Sex Trade	9%	7%	15%
Any Risk**	**81%**	**79%**	**85%**

* Significantly different from White MSM - reference (p-value < 0.05).

** Any risk is defined as: at least 1 (out of 7) reported risk behaviors.

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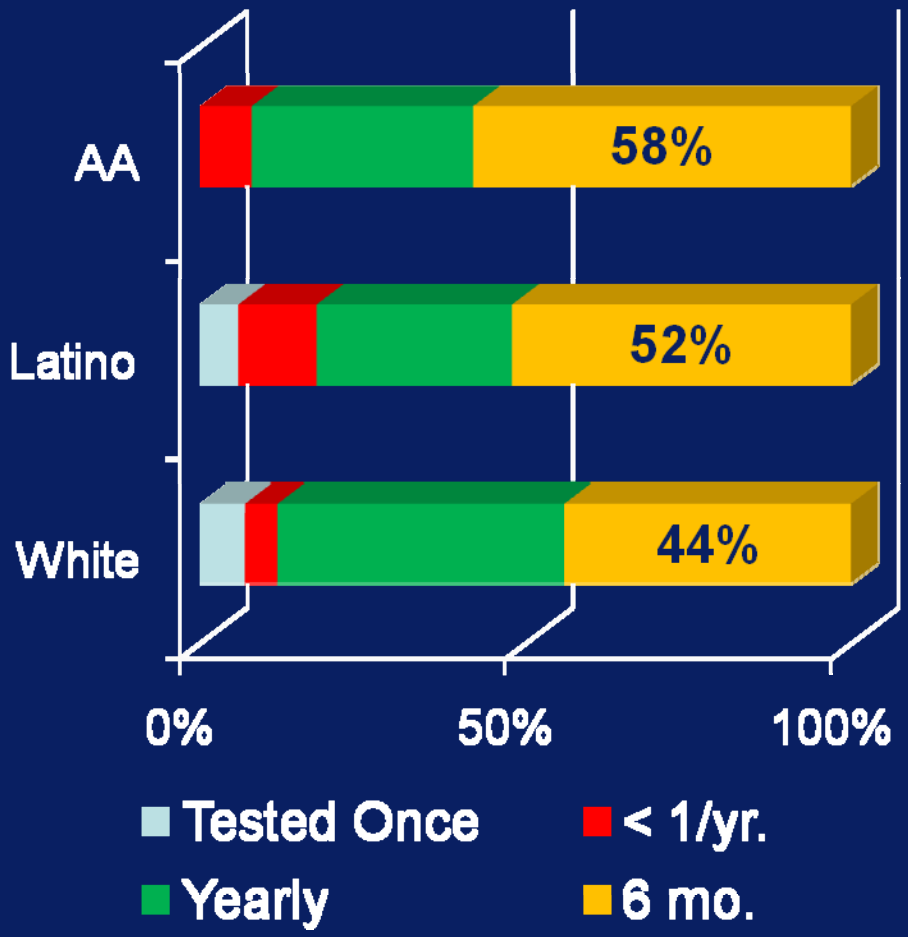
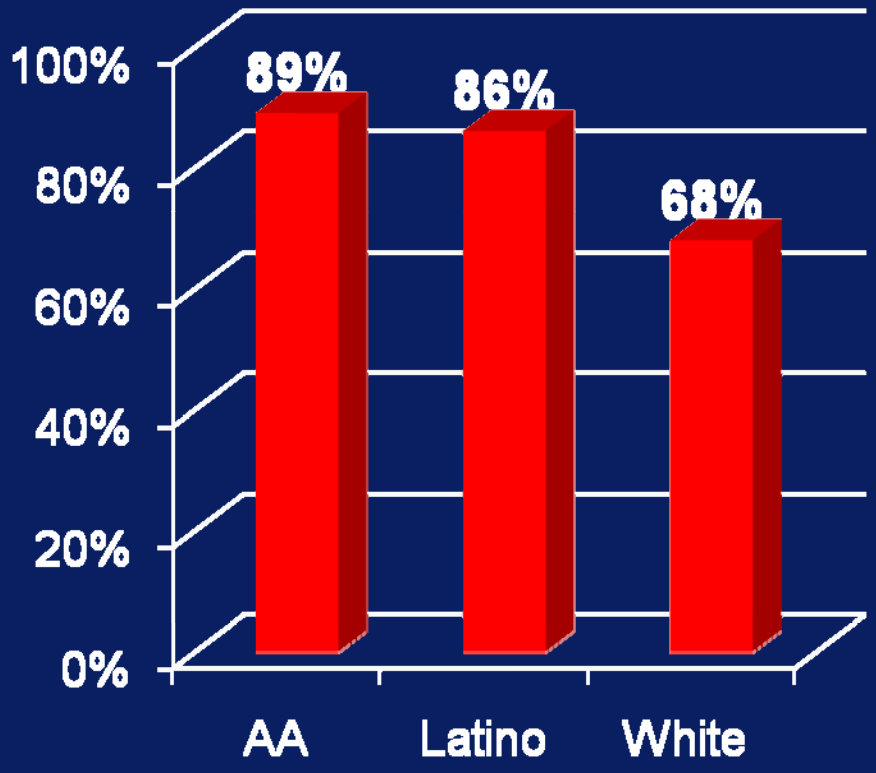
MSM Prevention* Service Utilization

Testing Frequency



Prevention Services** Utilized



* Only among HIV-negative or unknown status (n = 295).

** Includes ILI, GLI, HIV information, public HIV test, or needle exchange.

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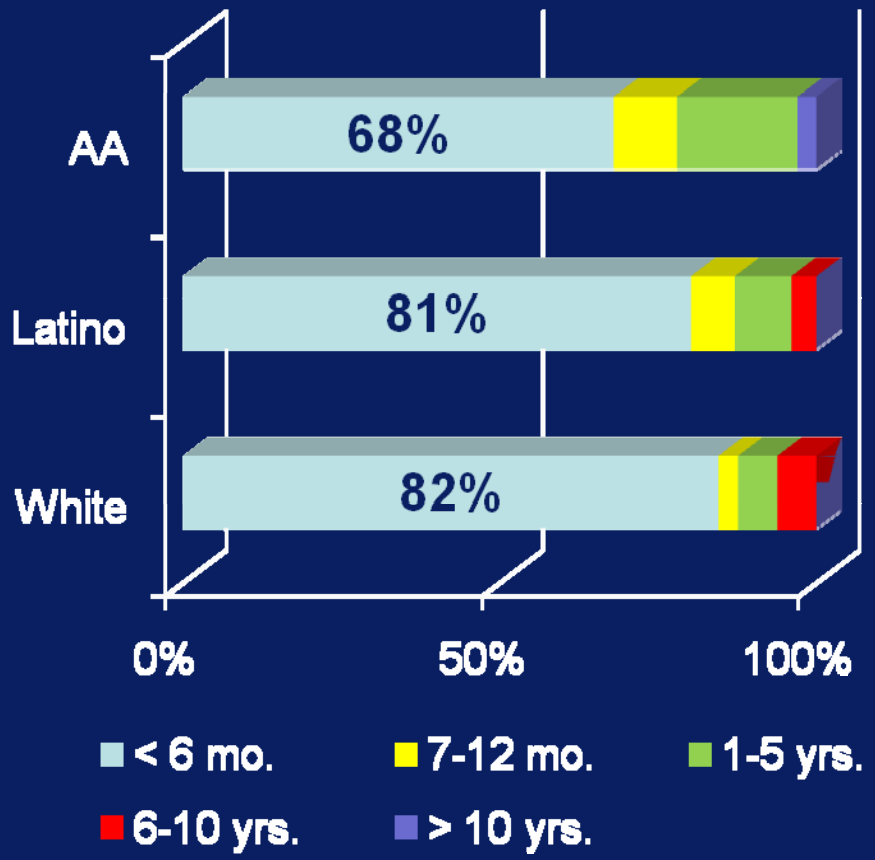
MSM Care* Services Utilization

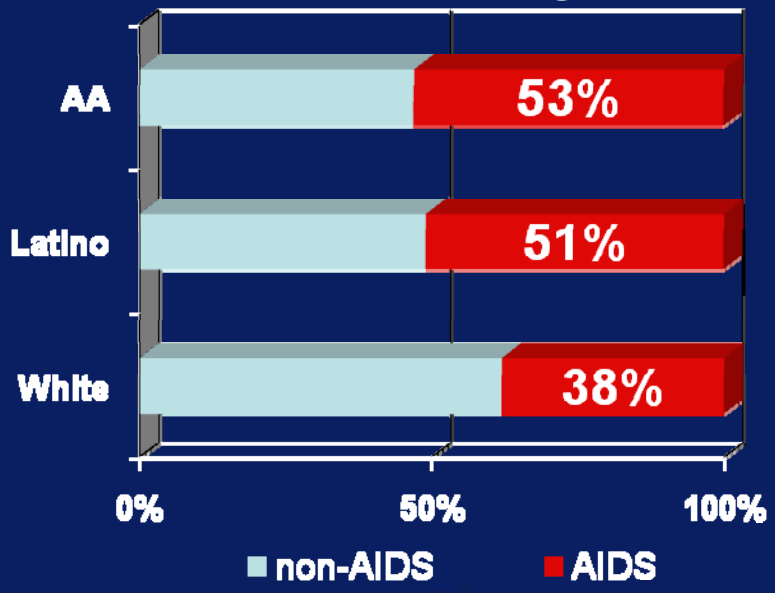
Time until Care Sought



Interruption in Care (1 yr.)

- 36% of AA MSM
- 22% of Latino MSM
- 12% of White MSM

% with AIDS Diagnosis



* Only among HIV-positive individuals.

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Modeling HIV Status Using Risk

BIVARIATE MODEL:	HIV-Positive Status (Outcome)	=	Any Risk* (Independent)

- Any Risk: reporting at least 1 out of 7 risk behaviors.

- MSM who reported at least 1 risk factor were **1.7** (CL: 1.1 – 2.8) times more likely to have a HIV-positive serostatus than MSM that didn't report any risk factors.

Bivariate Model by Race

Independent Variable	AA MSM (n = 81)	Latino MSM (n = 211)	White MSM (n = 75)
		Unadjusted OR (CL)	
Any Risk*	3.5 (1.2 – 10.1)	**1.2 (0.6 – 2.4)**	**1.0 (0.3 – 3.6)**

- Association between HIV risk and HIV-positive status is not significant among Latino and White MSM.

Modeling HIV Status Using Risk

MULTIVARIATE MODEL:
HIV-Positive Status = Any Risk + Age + Education + Race + Employment + Service Utilization

- MSM who reported any risk (at least 1 risk factor), were **2.1** (CL: 1.1 – 3.9) times more likely to self-report a positive serostatus compared to those with no reported risk.

- Race* was not significant in the analysis.

* Included all races (AA, A/PI, Latino, AI/AN, Other, and White (reference) .

Multivariate Analysis by Race

Independent Variable	AA MSM (n = 81)	Latino MSM (n = 211)	White MSM* (n = 75)
	Adjusted OR (CL)		
Any Risk	10.0 (1.9 – 52.0)	**1.4 (0.6 – 3.1)**	**0.8 (0.2 – 4.0)**

AA MSM: Risk → **Strong Assoc.** → HIV-Positive

Latino MSM: Risk → **No Assoc.?** → HIV-Positive

White MSM: Risk → **No Assoc.?** → HIV-Positive

* Education was not controlled for due to questionable model fit.

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Discussion

Summary of Results:

1) AA MSM (HIV-) had significantly lower levels of risk compared to White MSM (HIV-).
   - Risk levels among HIV+ MSM were not significantly different between races.
2) AA MSM who reported any risk exhibited strong associations to HIV+ status.
   - White MSM did not have a significant association.

Conclusion:

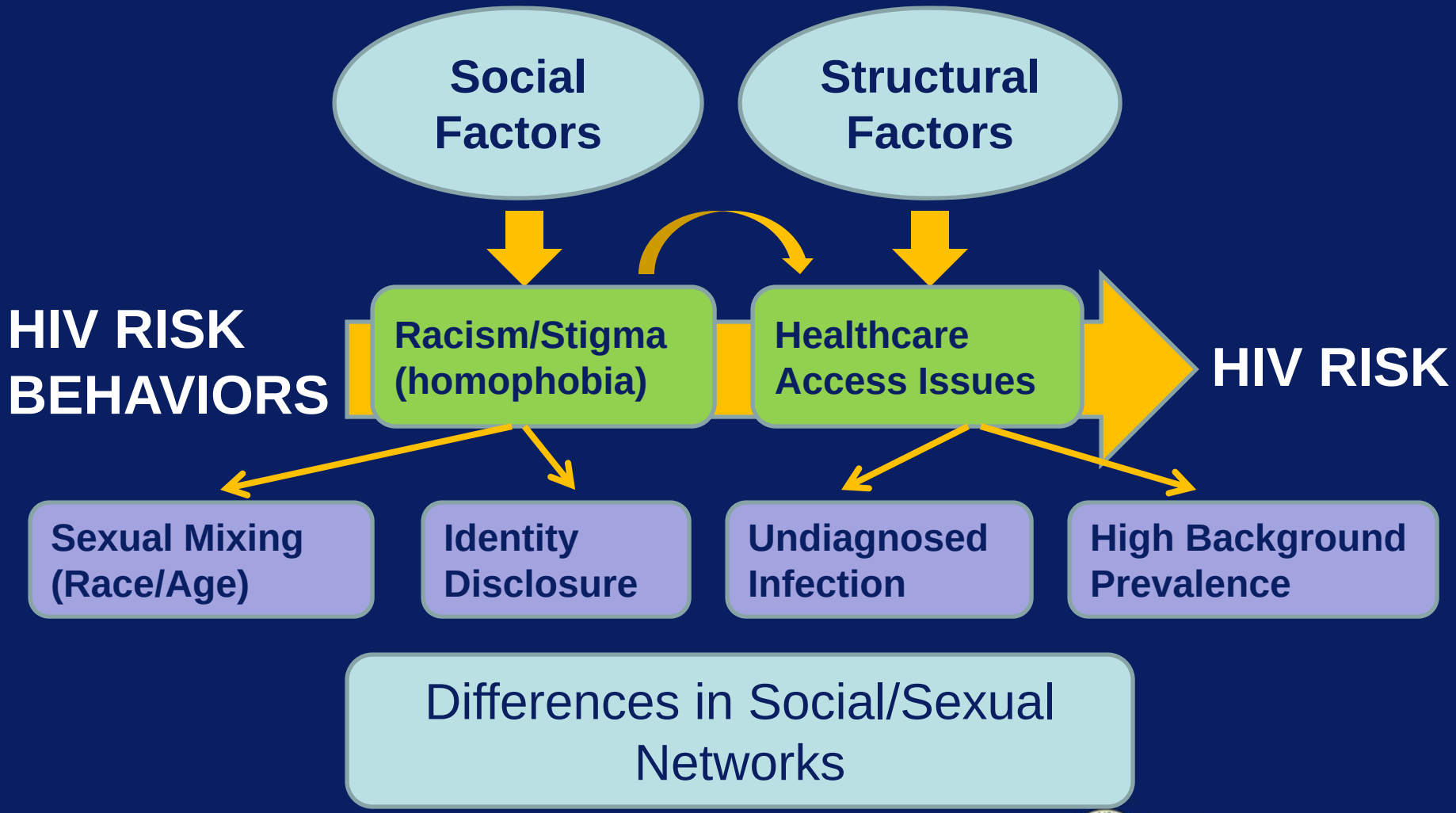
HIV risk factors do not explain the disproportionate impact AA MSM experience in LAC.

Findings from Literature

- Numerous studies have found similar results:
  - Similar or lower levels of risk for Black MSM compared to White MSM.*
  - AA MSM are more likely to have a HIV-positive status compared to White MSM.**
- Potential hypotheses that may explain paradox:
  - Higher STD prevalence
  - Disclosure of sexual identity
  - Higher HIV background prevalence
  - Lower ART usage
  - Undiagnosed Infection/Testing Patterns
  - Partner Selection/Sexual Mixing

* GA Millet et al (2007), Crosby et al (2007),
** NT Harawa (2004).

Context of HIV Transmission among Black MSM



Prevention Implications

- Even though prevention (HE/RR) programs that focus on reducing individual-level risk behaviors are important, more emphasis should be placed on innovative ways to influence the context and environment in which HIV transmission occurs.
    - Focus on community-level or structural interventions.

Study Limitations

- Cross-sectional study design:
  - No causal inferences can be made using the data (only associations).
- Small sample sizes:
  - Associations that truly exist may appear statistically insignificant or vice-versa.
- Non-representative sample?
- Data is self-report:
  - Data may be unreliable if one population were to over or under-report specific behaviors compared to other groups because it is “socially desirable”.

Next Steps

- Further studies need to investigate which of these hypotheses are relevant to and can explain the disproportionate impact AA MSM experience in LAC and nationwide.

Social Network Testing Project (SNTP):

- Currently, a peer-recruitment testing project is being conducted in LAC among young MSM as an effective strategy to identify undiagnosed infection.
- Preliminary findings are encouraging (5 fold increase in positivity rate).

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Jennifer Felderman

Office of AIDS Programs and Policy Contact Information

Min Kim, MPH
Epidemiology Analyst
Planning & Research Division
Phone: (213) 351-8120
Fax: (213) 381-8023
Email: minkim@ph.lacounty.gov

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