

Factors Associated with Late HIV Testing for Latinos Diagnosed with AIDS in Los Angeles, 2000-2004

Amy Rock Wohl, PhD
Chief Epidemiologist

HIV Epidemiology Program
Los Angeles County Department of Public Health

awohl@ph.lacounty.gov

Tel: 213-351-8196

PPC Meeting, February 5th 2009



Background - I

- Overall factors associated with late testing:
 - Latino and Black race/ethnicity
 - Female gender
 - Younger age
 - Heterosexual orientation
 - Lower education
 - No health insurance or private insurance
 - Birth outside the U.S.
- In general Latinos less likely to test for HIV compared with other groups
- Latinos also more likely to test later in the course of their infection
 - twice as likely as Whites to test for HIV late in the course of their infection (in LA County)*

*CDC, *Morbidity and Mortality Weekly Report* (2003)., 52, 581-586; Johnson et al., *AIDS Patient Care and STDs* (2003).



Background-II

Benefits of early testing for HIV:

- Opportunity for risk reduction messages
- Prevent further transmission
- Early entry into HIV care to maximize antiretroviral treatment efficacy



Background - III

- Nearly half of Latinos with HIV in U.S. and 83% of Latinos with AIDS in LAC born outside of U.S.
- Immigrants face unique obstacles to seeking and obtaining health care that include:
 - linguistic barriers
 - loss of social support systems
 - fears concerning legal status
 - perceptions that they are not at risk
 - unfamiliarity with complex health system
 - low levels of acculturation



Background - IV

- Overall, 48% of Latinos in LAC have less than a high school education; the lowest median household income and the highest poverty rate
- Also unique patterns of HIV testing among subgroups of Latinos
- Latinos of Mexican descent more likely than Latinos of Cuban descent to never have tested for HIV (Lopez-Quintero, 2005)
- Unique characteristics of immigrants may necessitate novel HIV testing outreach strategies for Latinos



Background - V

- Research on cultural factors, knowledge and perceptions of HIV and AIDS among persons of Mexican origin show:
 - strong traditional gender role beliefs
 - discomfort with discussions of sexuality
 - homophobic attitudes
 - stigmatization of HIV and MSM
 - low self perceptions of risk
 - minimal HIV knowledge
 - misconceptions regarding HIV transmission modes
- Few studies have examined factors associated with late testing for Latinos specifically



Study Objectives

- **Examine socio-demographic characteristics associated with late testing for Latinos diagnosed with AIDS in LAC**
- **Compare reasons for testing for late vs. non-late Latino testers**
- **Compare type of testing site for first positive HIV test for late vs. non-late Latino testers**



Methods- I

- Data collected as part of population-based CDC-funded SHAS project (Supplement to HIV/AIDS Surveillance)
- Participants include adults (age ≥ 18 years) diagnosed with AIDS and reported to LAC AIDS registry from 1990-2004
- Standardized interview occurred within two years of AIDS diagnosis
- Interview completed in either English or Spanish

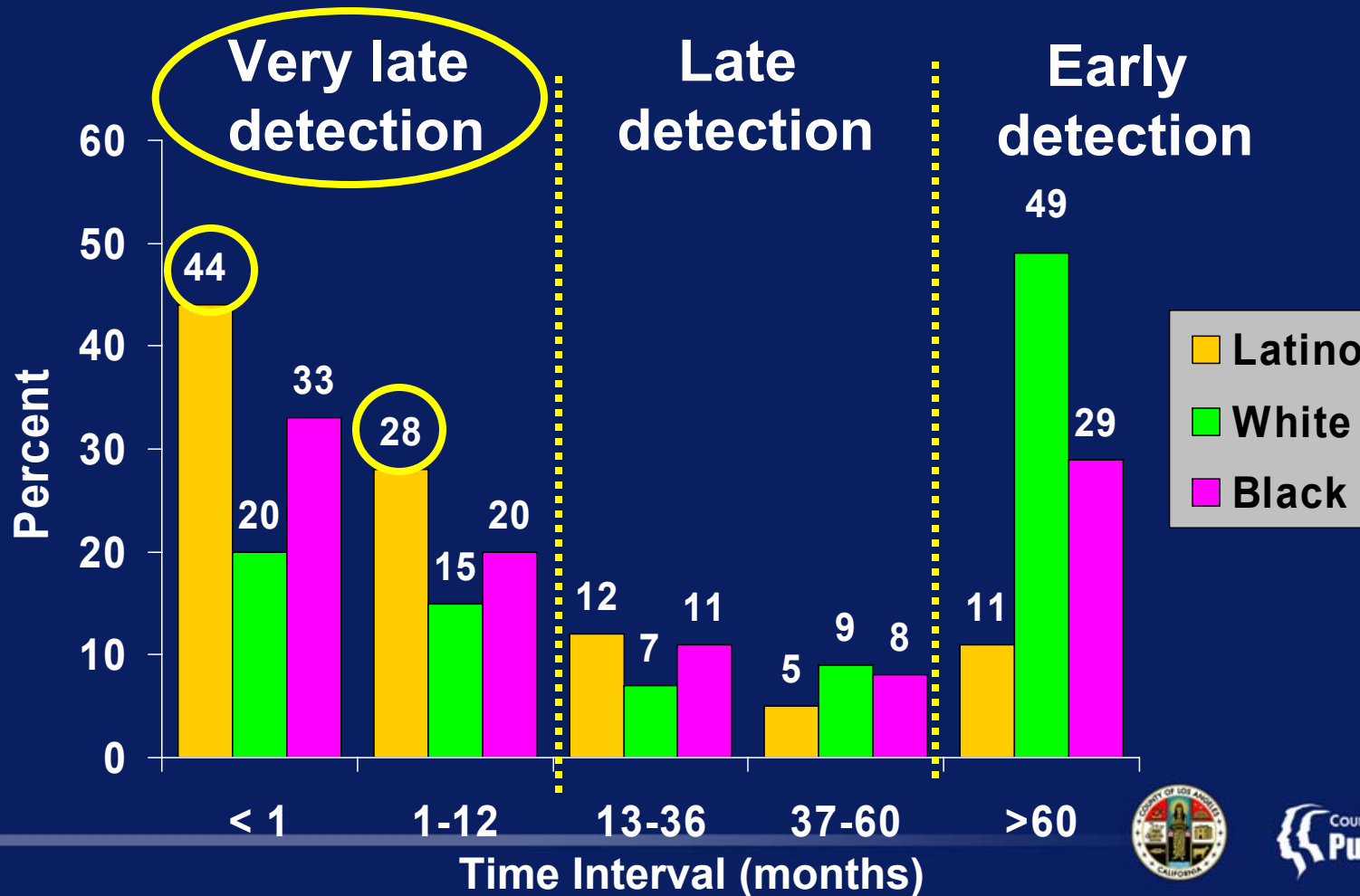


Methods- II

- **Analysis limited to participants who reported their ethnicity as Latino or Hispanic and were interviewed in SHAS between 2000-2004**
- **“Late testers” defined as having received their first HIV+ test result within 12 months of an AIDS diagnosis**
- **“Non-late testers” defined as having received their first HIV+ test result more than 12 months prior to an AIDS diagnosis**



Time between first learned of HIV+ status and AIDS Diagnosis by Race/Ethnicity (N = 819), LAC, 2000-2004



Late Testing Status and Demographics for Latinos

Characteristic		Late Tester n=267 (70%)	Non-Late Tester n=116 (30%)	All n=383
Age	18-29	53 (20%)	27 (23%)	80
	30-39	118 (44%)	58 (50%)	176
	40-49	56 (21%)	25 (22%)	81
	50+	40 (15%)	6 (5%)	46
Gender	Male	222 (83%)	94 (81%)	316
Income	<\$10,000	159 (60%)	58 (50%)	217
	\$10,000+	108 (40%)	58 (50%)	166
Not Married		218 (82%)	99 (85%)	317
Not Employed		168 (63%)	70 (60%)	238



Demographic Characteristics and Late Testing Status for Latinos

Characteristic	Late Tester n=267 (70%)	Non-Late Tester n=116 (30%)	All n=383
----------------	-------------------------------	-----------------------------------	--------------

Country of Birth*

Mexico	153 (57%)	58 (50%)	211
Central Am	67 (25%)	20 (17%)	87
U.S.	41 (15%)	35 (30%)	76
Other	6 (2%)	3 (3%)	9

5+ Years in U.S. 199 (88%) 71 (85%) 270

<HS Education* 166 (62%) 52 (47%) 220

Interviewed in Spanish* 204 (76%) 60 (52%) 264



Demographic Characteristics and Late Testing Status – cont.

Characteristic	Late Tester n=267 (70%)	Non-Late Tester n=116 (30%)	All n=383
Health Insurance	155 (64%)	74 (67%)	229
Mode of HIV Exp			
Male-male sex	130 (49%)	59 (51%)	189
IDU	11 (4%)	9 (8%)	20
MSM/IDU	11 (4%)	12 (10%)	23
Heterosexual	72 (27%)	23 (20%)	95
Other	43 (16%)	13 (11%)	56
History of IDU*	16 (7%)	17 (16%)	33



Logistic Regression Model on Factors Associated with Late HIV Testing for Latinos with AIDS

Characteristic	Unadj OR	(95% CI)	Adj OR	(95% CI)
Age**				
18-29	1.0	(0.6, 1.7)	1.3	(1.0, 1.7)
30-39	ref			
Education				
Less than HS	1.9	(1.2, 2.9)	1.1	(0.6, 1.9)
HS+	ref			
Nativity				
Foreign-born	2.4	(1.4, 4.0)	0.9	(0.4, 2.0)
US-born	ref			
Language				
Spanish	3.0	(1.9, 4.8)	2.9	(1.4, 6.0)
English	ref			
History of IDU				
Yes	0.4	(0.2, 0.8)	0.5	(0.2, 1.2)
No	ref			



**Age was entered in to the logistic model as a continuous variable and scaled by 10

Main Reason for HIV Testing by Late Testing Status

Reason	Late Tester n=267 (70%)	Non-Late Tester n=116 (30%)	P-value n=383
Illness	201 (79%)	39 (37%)	<0.0001
Risk Factor	11 (4%)	9 (8%)	0.112
Non-Clinical Screening	9 (3%)	6 (6%)	0.3515
Clinical Screening*	13 (5%)	28 (26%)	<0.0001
Wanted to know/ curious	22 (9%)	24 (23%)	0.0003

*Includes prenatal screening



HIV Testing Site at First HIV+ Test by Late Testing Status

Site	Late Tester n=267 (70%)	Non-Late Tester n=116 (30%)	P-value n=383
CHC/Public Clinic	52 (27%)	38 (38%)	0.05
Hospital - inpatient	82 (40%)	10 (10%)	<0.0001
Private MD/HMO/clinic	31 (15%)	21 (21%)	0.09
Hospital - outpatient	11 (5%)	6 (6%)	0.65
HIV counseling/testing	9 (4%)	7 (7%)	0.36
Other*	16 (8%)	19 (19%)	0.002

*Includes small #s of persons tested at STD, AIDS/ID, family planning, OB/GYN, drug treatment, insurance/ employee or TB clinics, ERs, or correctional or military facilities



Main Findings

- In a logistic regression analysis, *completion of interview in Spanish* was main factor associated with late testing - after adjusting for age, education, country of birth, and history of injection drug use
- Latinos testing late for HIV were:
 - More likely to test due to illness
 - Less likely to test as part of a clinical screening
 - More likely to receive first HIV+ test in a hospital inpatient setting
 - Less likely to test positive at a community health center or public clinic

- Wohl et al, [AIDS Care](#), in press



Limitations

- **Sample includes only individuals diagnosed with AIDS and represents those least likely to test early**
- **Findings may not be generalizable to HIV+ persons who have not progressed to AIDS**
- **Findings may not be generalizable to other Latino subgroups or other regions of the U.S.**
- **Absence of information on immigration status and good acculturation measure which could be significant barriers to testing, although country of birth, language, time in US are surrogate acculturation measures**



Discussion I

- **Lack of familiarity with English is formidable obstacle to seeking health care in the US and may limit meaningful interactions with health care providers**
- **Language barrier limits acquisition of information necessary to maintain good health**
- **Language finding is consistent with study in Northern California where those interviewed in Spanish were less likely to be tested for HIV (Levy 2005)**



Discussion II

- Our data underscore findings of a national needs assessment on Latino access to HIV education that reported lack of culturally relevant HIV information in media (Rios-Ellis 2008)
- A Spanish-language media campaign on US/Mexico border showed increase in HIV testing among Latinos (Olshefsky 2007)
- A social marketing campaign in LAC on syphilis reported that Spanish language portion resulted in increased HIV testing (Plant 2008)
- More Spanish language HIV testing media campaigns needed in LAC



Discussion III

- **Lack of association found between late testing and country of birth, age, gender, education, and HIV exposure mode among Latinos in LAC is inconsistent with findings of study groups of Latinos in other states and nationally**
- **Inconsistent findings may be explained by regional differences that are masked when analyzing a national dataset**
- **More of the non-late testers were tested as part of clinical screening or because they were curious, suggesting that more of the late testers might have been tested earlier if offered testing in medical settings per CDC recommendation**



Discussion IV

- Data show most Latinos with AIDS not receiving their first HIV test at HIV testing sites but at community/public clinics where stigma may be less of an issue
- Perhaps need to increase outreach for HIV testing at public clinics
- Other research has shown that bundling of HIV tests with other tests – such as for diabetes – results in more HIV testing among Latino subgroups, including for Latino men who have sex with both men and women (Galvan 2006)
- Important to educate all providers on importance of HIV testing among Spanish speaking Latinos



Recommendation Summary

- **More Spanish language HIV testing media campaigns needed in LAC**
- **Increase outreach to Latinos for HIV testing at public clinics**
- **Important to educate all providers on importance of HIV testing among Spanish speaking Latinos**



Acknowledgments

- **Collaborators:**
Dr. Douglas Frye, Judith Tejero MPH
- **SHAS Interviewers:**
Alexander Carruth, Maribel Castillon,
Breska Jiminez, Helen Hernandez
- **Other Support:**
Doreen Keogh, Sharon Lu, Sharon Pruhs,
Gordon Bunch, Paul Simon

