

Differences in HIV risk behaviors and health status
between Puerto Rican injection drug users residing on
the Island and the United States mainland

Luz M. López, PhD, MPH

Lisa de Saxe Zerden, MSW

Therese Fitzgerald, LCSW, MSW

Lena Lundgren, PhD, MA

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Study AIMS

This study examines age of first injection drug use and its associations with

- HIV/AIDS
- Hepatitis C
- Psychiatric symptoms

Between two samples of Puerto Rican injection drug users (IDUS); one residing on the Island and one residing in Massachusetts.





Collaborative Effort

"La Voz": Tapestry Health Services, Springfield, MA

Funded by: Center for Substance Abuse Treatment

Substance Abuse and Mental Health Services Administration

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Principal Investigator, Services:

Timothy Purington, M.Ed. - Tapestry Health Services

Principal Investigator, Evaluation:

Lena Lundgren, Ph.D. - Boston University School of Social Work

"Voices Boricuas"

Study with injection drug users in Puerto Rico, Summer 2006

Principal Investigator:

Luz López Ph.D., MPH

Funded by Boston University School of Social Work

Massachusetts HIV/AIDS reported cases



- The Massachusetts Department of Public Health HIV/AIDS surveillance report indicates that as of September 2007, there are:
 - 7, 734 persons living with HIV
 - 9, 323 living with AIDS
 - 17, 057 total HIV/AIDS cases(MDPH, 2007)

HIV/AIDS in Puerto Rico



- HIV/AIDS Sero-prevalence is higher among Puerto Ricans compared to other Latino groups (CDC, 2005).
- Half of AIDS cases in PR are due to heterosexual injection drug use (IDUs) (CDC, 2005).
- Between 1996-2004, IDUs in PR used mixtures of heroin and cocaine (speedballs) and were more than 3x's as likely to share needles, increasing HIV/AIDS risk (Deren, Colón, Robles, 2005).

Data Collection

Questionnaire was developed by Boston University School of Social Work's Center for Addictions Research and Services

Questionnaire was translated, back-translated, and culturally adapted for Puerto Ricans

Data collection occurred simultaneously in two locations:

- On the Island of Puerto Rico "Voices Boricuas", San Juan metro area
- In Springfield, MA

Study Sample

N=400

Puerto Rico N=139

- A total of 149* in person interviews conducted in the metro San Juan Area
- Most interviews conducted in Spanish by BU faculty member or graduate students, each took ~ 45m

* 10 interviews were excluded due to missing data or did not meet study criteria

Western MA N=261

- La Voz data collection began 2002. This study merged only interviews were completed during 2004-2006.
- Interviews were conducted by trained outreach workers affiliated with Tapestry Health.

Independent Variables

Demographic characteristics

- Gender
- Age
- homelessness

Location of PR IDUs

- Island of PR
- Western MA

- Age of 1st injection
- Incarceration
- Self-reported psychological symptoms

Dependent Variables

Three dichotomous DVs:

- HIV/AIDS+ Status
- HCV+ Status
- STD+ Status

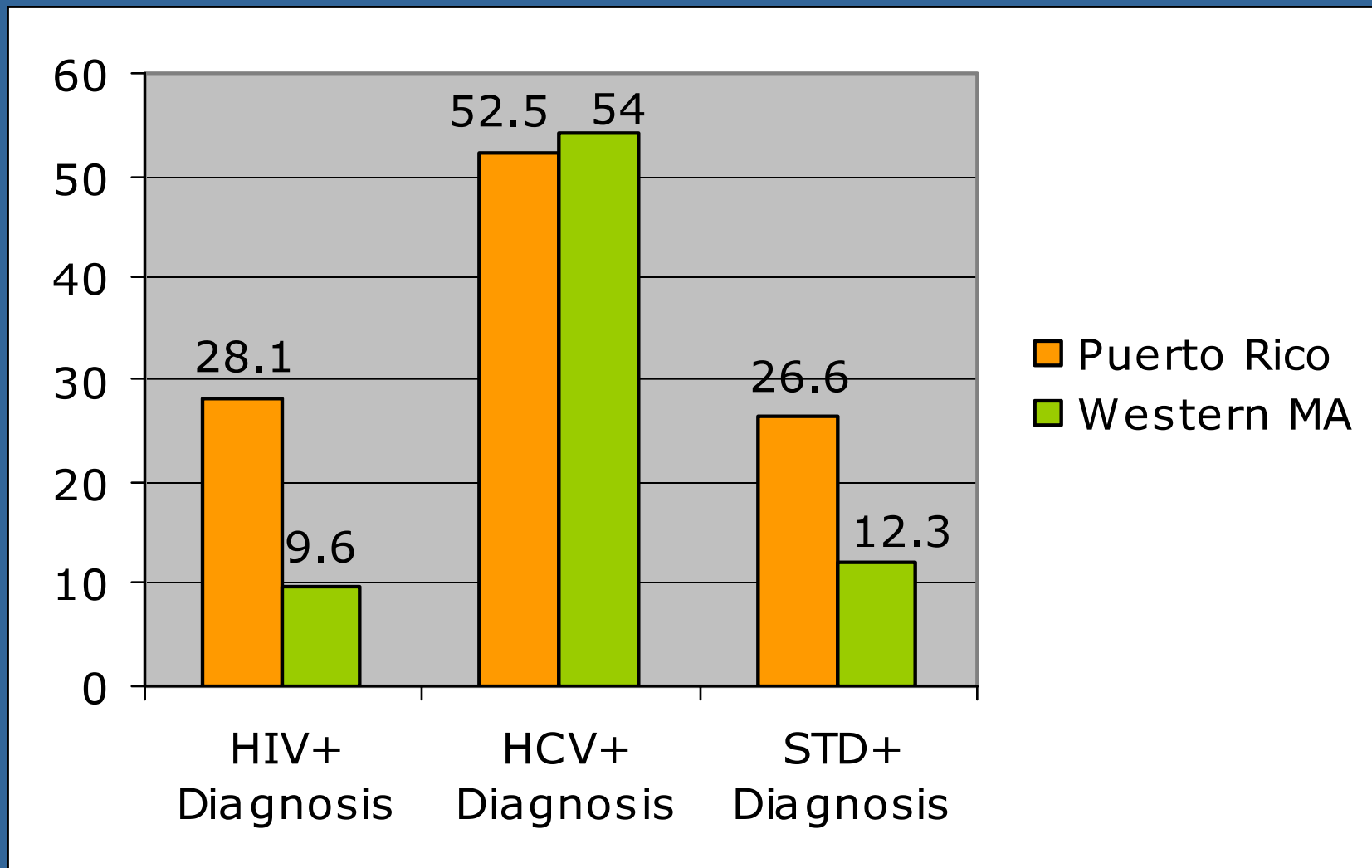
Positive status for all three variables was coded as 1. If the participant tested negative, did not know their status or refused to reveal their status at time of interview, status was coded as 0.

Sample Characteristics

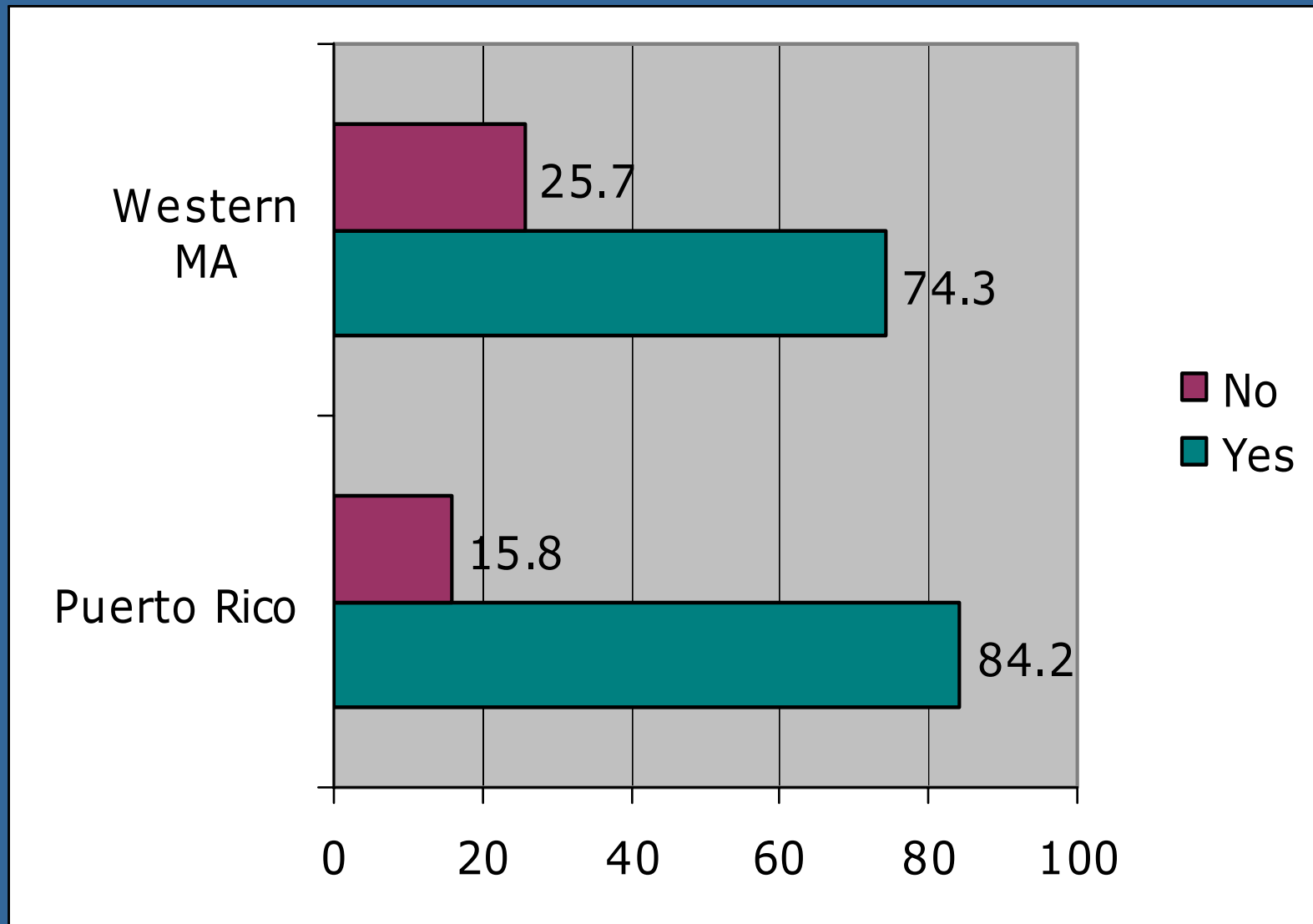
	Puerto Rico (N=139) % or Mean (SD)	Western MA (N=261) % or Mean (SD)
Men	79.9%	82.0%
Age	38.0 (9.2)	36.7 (8.5)
Age of 1 st drug injection**	20.8 (6.5)	22.5 (7.0)
Injected past 6 months	73.4%	80.5%
Homeless (at time of interview)	56.1%	55.6%
Ever been incarcerated**	84.2%	74.3%
Positive HIV Status***	28.1%	9.6%
Positive HCV Status	52.5%	54.0%
Positive STD Status***	26.6%	12.3%

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .000$

Percent of Sample with HIV, HCV & STD Positive Status



History of Incarceration



Sample Characteristics:

Self-Reported Psychological Symptoms (experienced in past 6 months)

	Puerto Rico (N=139) % or Mean (SD)	Western MA (N=261) % or Mean (SD)
Depression***	66.2%	83.9%
Anxiety or tension	79.9%	86.2%
Hallucinations*	28.8%	19.9%
Trouble w/ memory	62.6%	60.9%
Trouble controlling violent behavior***	49.6%	28.4%
Thoughts of suicide	35.3%	28.4%
Attempted suicide***	27.3%	15.3%
Ever prescribed meds for psych/emotional problems*	29.5%	20.7%

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .000$

Model 1: HIV Status

LOCATION:

- IDUs residing in western MA were ~66% less likely to be HIV+ compared to IDUs residing in Puerto Rico ($p < .000$).

AGE:

- Age was significantly and positively associated with HIV status ($p < .000$). For every year older the respondent was, they were 1% more likely to be HIV+ than younger participants.

AGE OF 1st INJECTION:

- Age of first injection was significantly and negatively associated with HIV status ($p < .013$). Participants who were older at age of first injection were 6% less likely to be HIV+.



Model 2: HCV Status

AGE: was significantly and positively associated with HCV status. With every year of age, respondents were 1% more likely to be HCV+ ($p < .024$).

AGE OF 1st INJECTION : was significantly and negatively associated with HCV status. Those who were older at age of first injection were 4% less likely less likely to be HCV+ ($p < .013$).

HISTORY of INCARCERATION: Those who had ever been incarcerated were 1.9 times more likely to be HCV+ ($p \leq .015$).

Model 3: STD Status

LOCATION:

- IDUs residing in western MA were 57% less likely to be STD+ than those residing in Puerto Rico ($p < .003$).

GENDER :

- Gender was significantly and positively associated with STD status. Specifically, women were 3 times more likely to be STD+ than men ($p < .001$).



Implications

- ❑ Work towards better HIV prevention programs that address cultural needs of Latinos, specifically, Puerto Rican IDUs
- ❑ Work towards better HIV prevention programs that tailor the needs of PR in both locales
- ❑ Participatory approaches to prevention methods
- ❑ Improved access to drug treatment programs
- ❑ Continue to raise awareness in the Latino community and work to lessen stigma and prejudice towards “deambulantes” (homeless) IDUs and HIV+ individuals



Study Limitations

Not a random sample; snowball sampling method used to recruit participants

All data collected on drug use, high-risk behaviors, HIV, HCV, STD and psychological symptoms was self-reported and not verified by other means.

Relatively small sample size and low numbers of participants with outcome variables may limit power to detect for confounding factors and interaction effects.

Larger sample recommended for both locations

Questions/Comments:
Luz López, PhD, MPH
luzlopez@bu.edu

Thank you!
Gracias