

Sexual Acquisition and Transmission of HIV Cooperative Agreement Program (SATHCAP)

Martin Y. Iguchi, Ph.D.

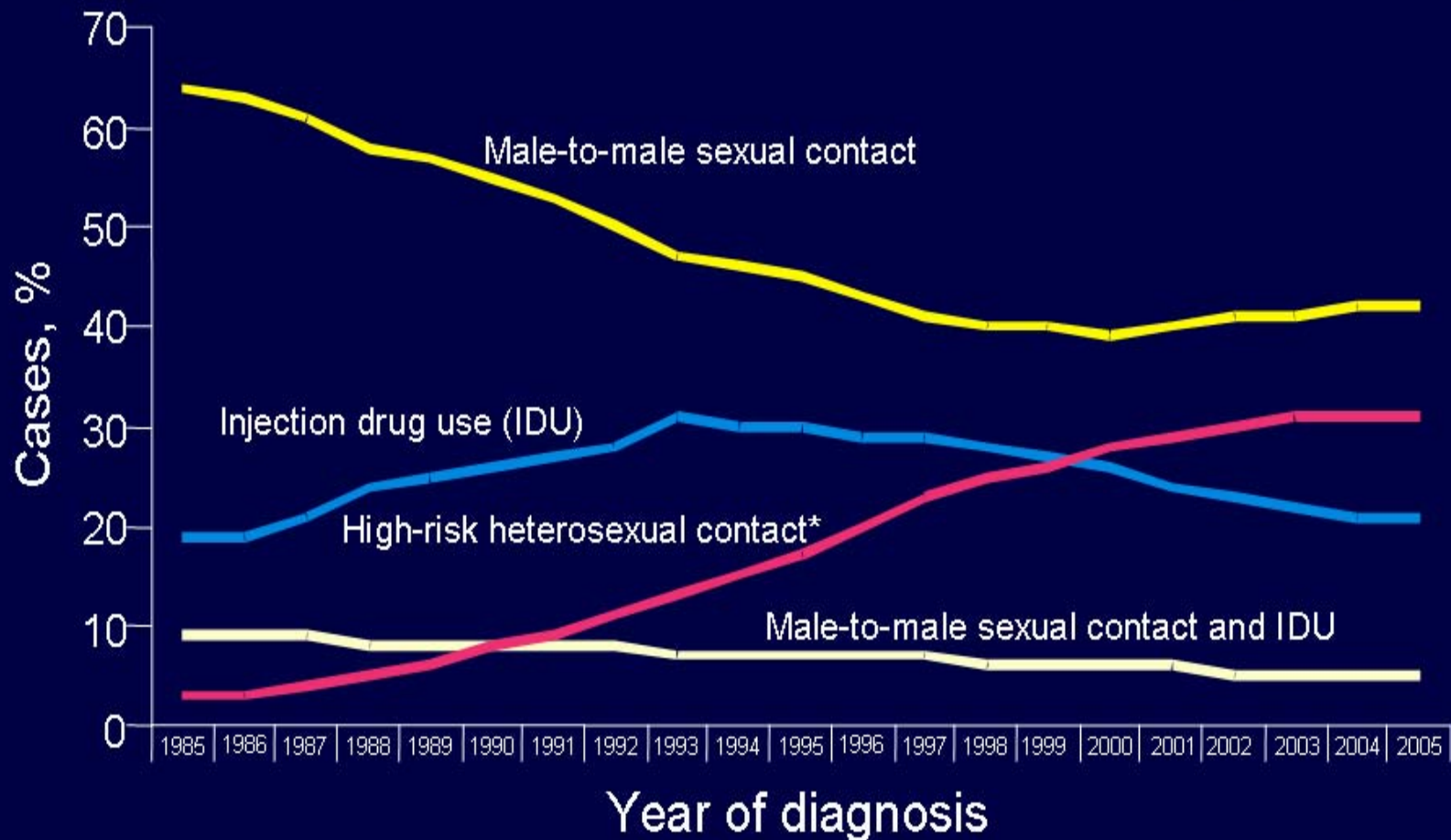
UCLA School of Public Health and
RAND Corporation



SATHCAP: The Role of Drug Use in Sexual Transmission of HIV

- Study initiated and funded by the National Institute on Drug Abuse (NIDA) to examine the transmission of HIV among drug using populations and from drug using to non-drug using populations
- Specifically, to determine the role of drug use in the sexual transmission of HIV and to identify “bridge” populations from drug users to non-drug users

Proportion of AIDS Cases among Adults and Adolescents, by Transmission Category and Year of Diagnosis, 1985–2005—United States and Dependent Areas

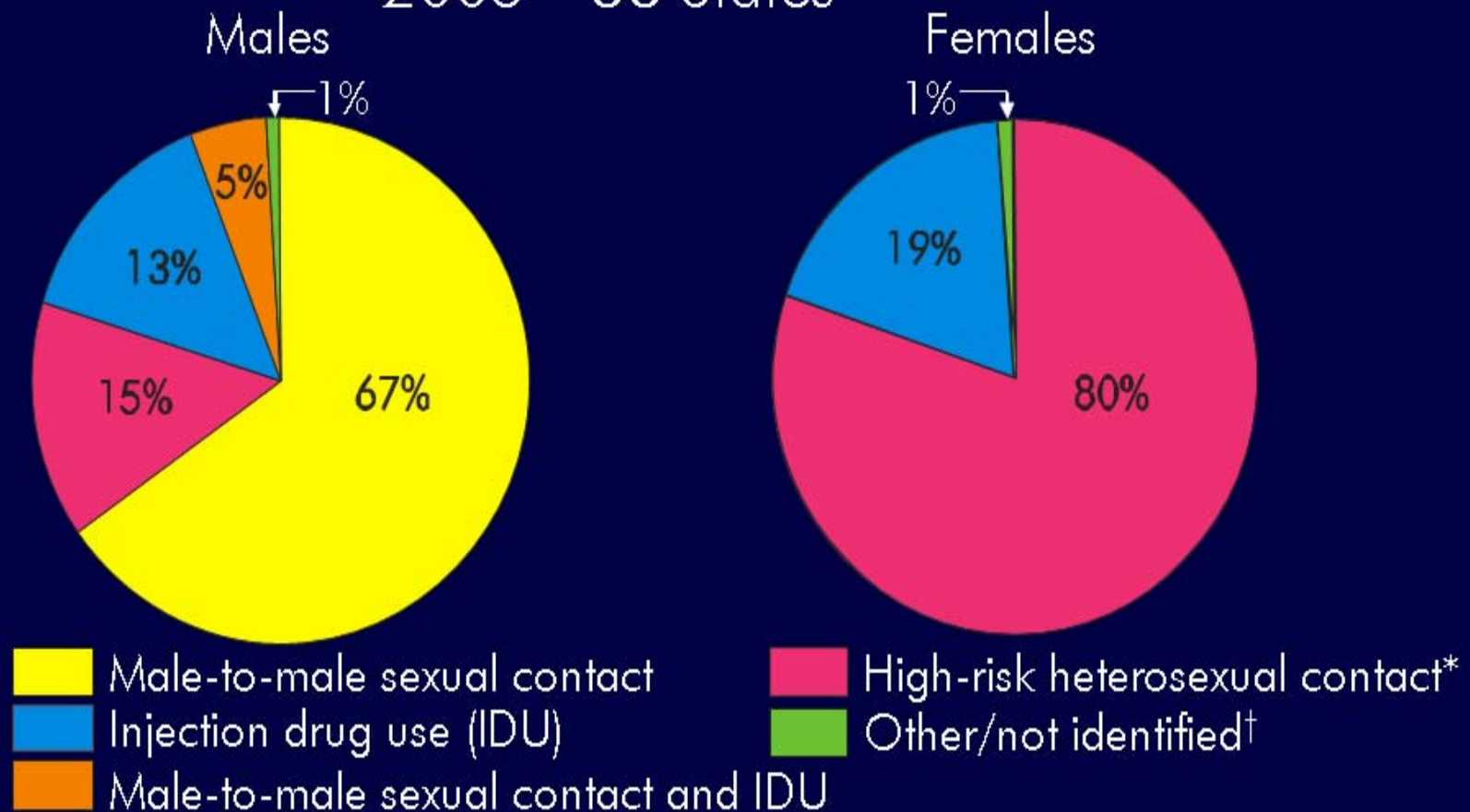


Note. Data have been adjusted for reporting delays and cases without risk factor information were proportionally redistributed.

* Heterosexual contact with a person known to have or to be at high risk for HIV infection.



Proportion of HIV/AIDS Cases among Adults and Adolescents, by Sex and Transmission Category 2005—33 States



Note. Data include persons with a diagnosis of HIV infection regardless of their AIDS status at diagnosis. Data from 33 states with confidential name-based HIV infection reporting since at least 2001. Data have been adjusted for reporting delays and cases without risk factor information were proportionally redistributed.

* Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

† Includes hemophilia, blood transfusion, perinatal, and risk factor not reported or not identified.



Revised June 2007



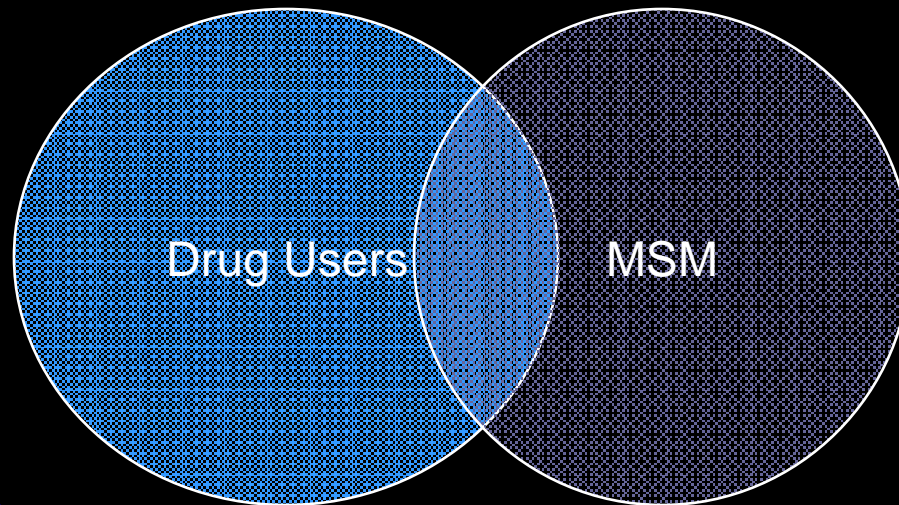
Over 6,000 SATHCAP Participants to Date

- Wave 1 participants N=3,269
 - Analyses reported here
- Wave 2 participants N=2,770 (as of 10/07)
 - Still in field

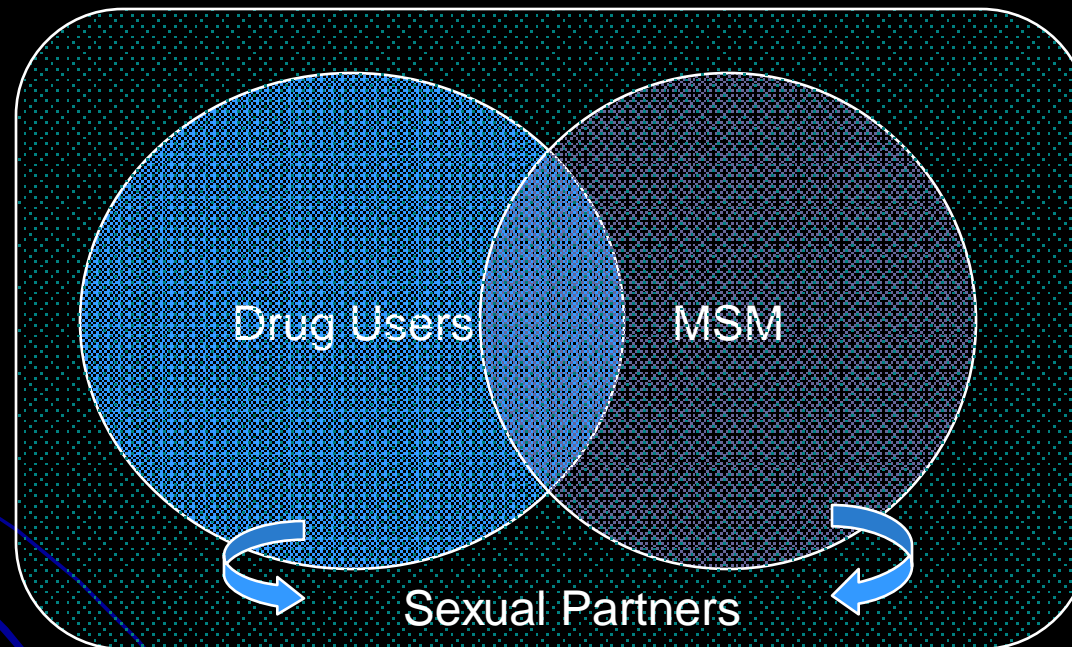
Dual Risk Group Recruitment

- Simultaneous sampling of two primary and potentially overlapping risk groups using respondent driven sampling (RDS)
 - drug users (cocaine/crack, heroin, methamphetamine, injection drug users)
 - men who have sex with men (MSM)
- Secondary sample of Sexual Partners (SPs) and a tertiary sample of Partners of Partners (PPs) recruited using snowball sampling

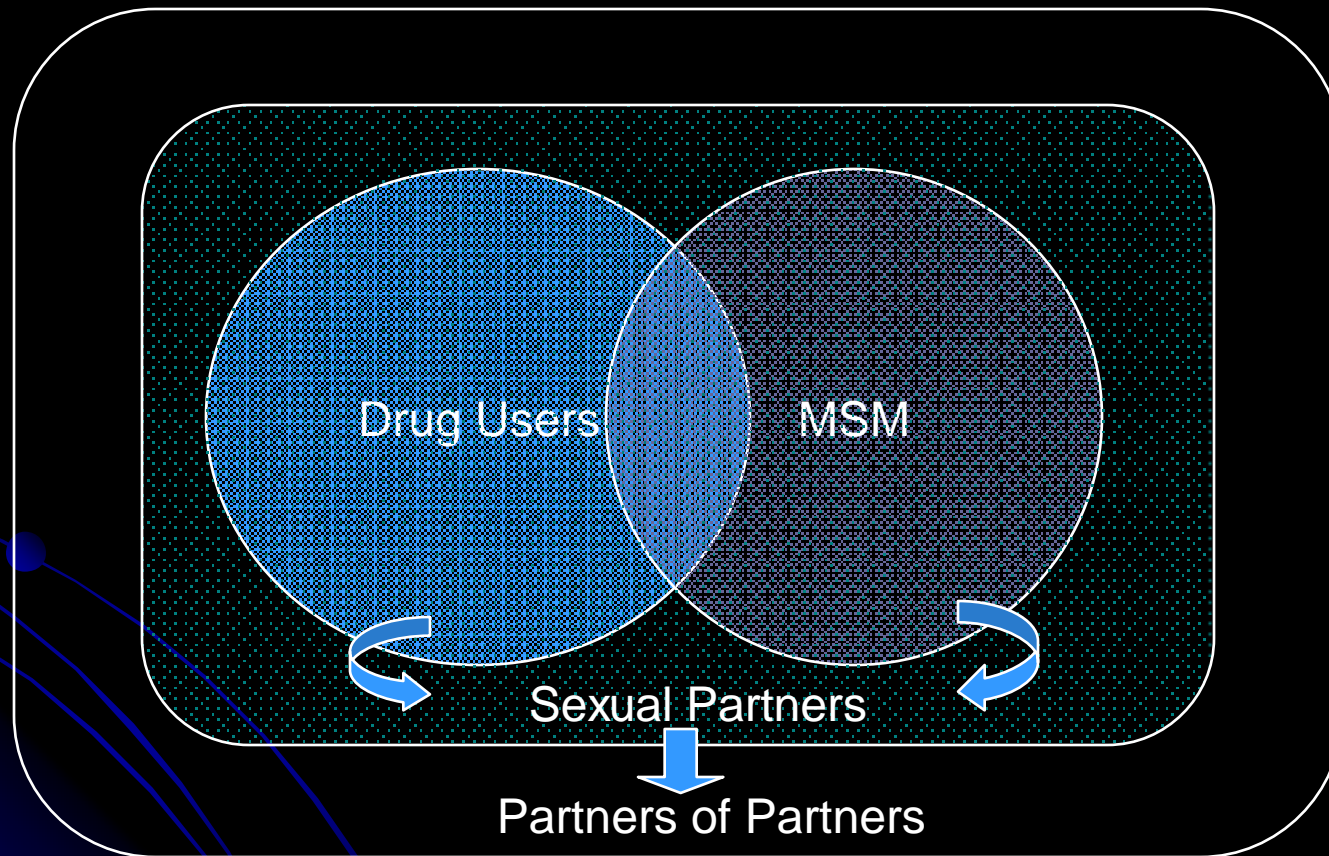
Dual Risk Group Recruitment



Snowball to Sexual Partners



Snowball to Sexual Partners and Partners of Partners



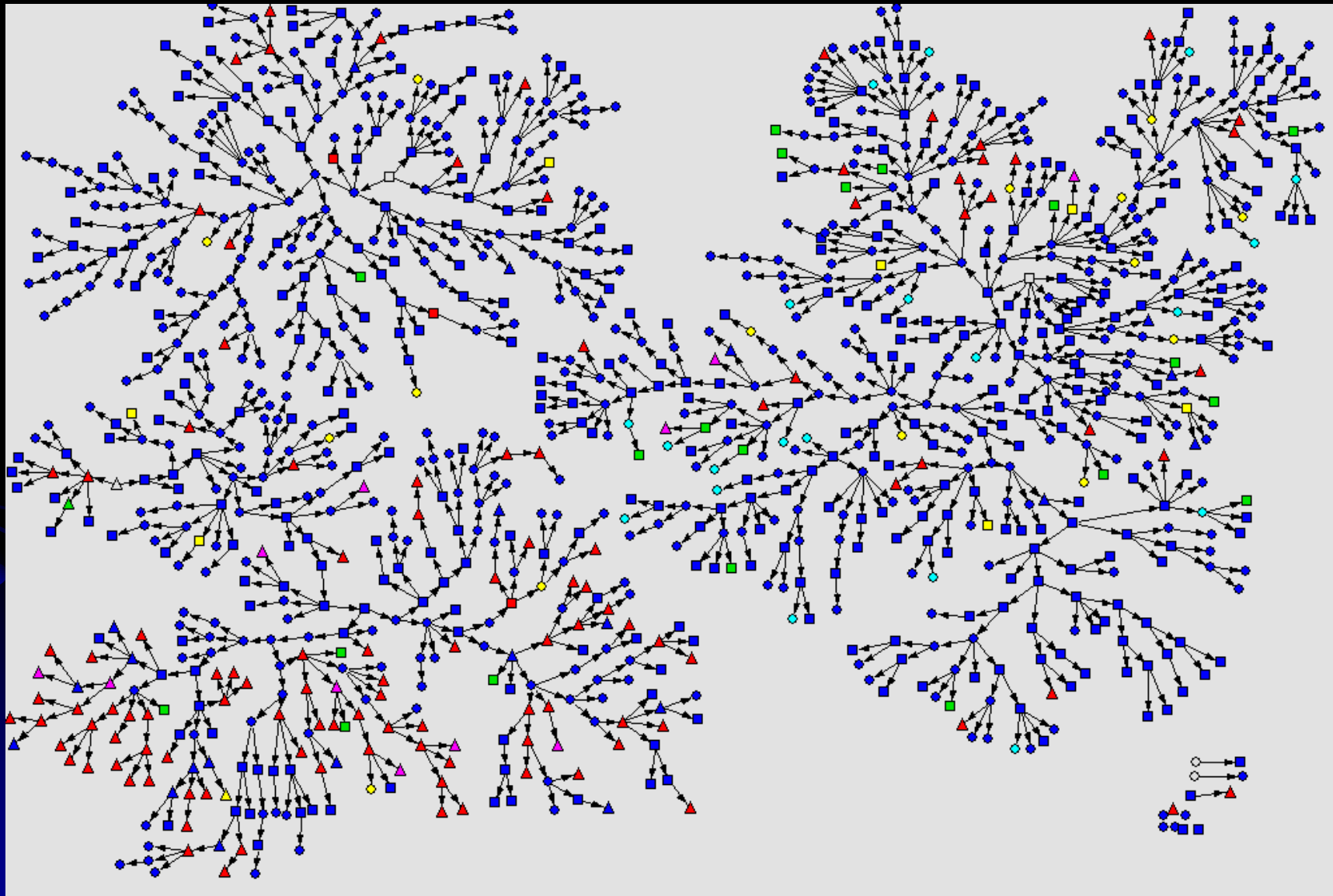
Four Cities, One Method

- St. Petersburg
 - PIs: Robert Heimer (Yale) and Andre Kozlov (BMC)
- Los Angeles
 - PIs: Steven Shoptaw (UCLA) and Pamina Gorbach (UCLA)
- Chicago
 - PI: Larry Ouellet (UIC)
- Raleigh-Durham
 - PI: Bill Zule (RTI)
- Scientific Coordinating Center
 - PIs: Martin Iguchi (RAND) and Sandy Berry (RAND)

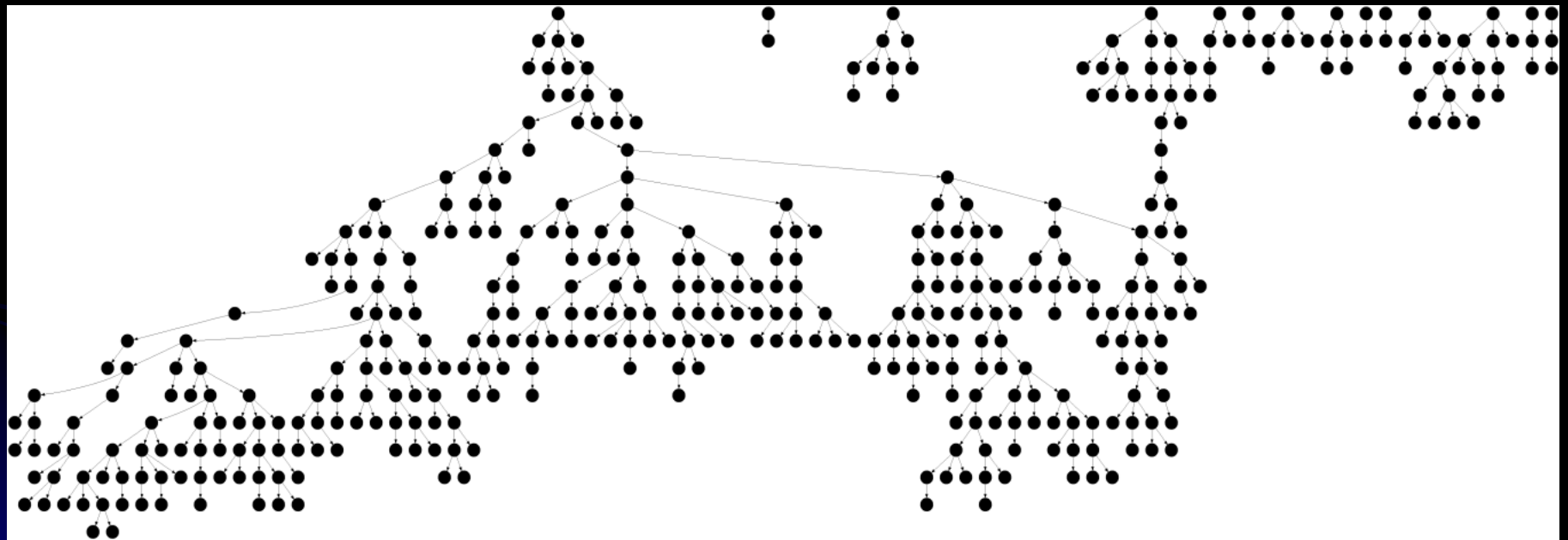
Respondent Driven Sampling (RDS)

- RDS is used widely to recruit hidden populations such as drug users and men who have sex with men
- Variant of chain-referral sampling
- Start with non-randomly selected “seeds”
- Participants receive two incentives to participate:
 - payment or gift for participation
 - coupons to refer others - with payments if others participate
- Recruitment continues over multiple “waves”

Chicago RDS



UCLA RDS recruits - arranged to show waves



Older, Low SES, African American Sample in U.S. vs. Younger, Higher SES in Russia

Site	Los Angeles	Chicago	Raleigh/Durham	St. Petersburg
Mean age	42	43	41	29
% Female	13%	39%	36%	27%
% African American	59%	71%	81%	0%
% White	16%	7%	14%	100%
% Disabled/Unemployed	75%	83%	72%	50%
% Homeless	57%	41%	42%	17%

Older, Low SES, African American Sample in U.S. vs. Younger, Higher SES in Russia

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Unexpected MSM/W Recruitment at U.S. Sites

Site	Los Angeles	Chicago	Raleigh/Durham	St. Petersburg
DU	23%	46%	47%	4%
IDU	15%	37%	26%	73%
MSM	29%	4%	6%	12%
MSM/W	31%	11%	13%	3%
SP Only	3%	4%	8%	8%

Highest HIV Seroprevalence: U.S. MSM and Russian DU (Wt)

Site	Los Angeles	Chicago	Raleigh/Durham	St. Petersburg
DU	15%(224)	3%(559)	7%(471)	5%(20)
IDU	11%(142)	5%(430)	12%(262)	50%(376)
MSM	60%(278)	27%(40)	34%(68)	31%(95)
MSM/W	10%(299)	4%(134)	13%(126)	34% (20)
SP Only	8% (33)	0% (58)	12% (99)	14% (55)

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Similarities across Disparate Sites in US

- To date, we have interviewed over 6000 MSM, Drug Users, and Sexual Partners
- In the US, our dual population RDS sampling approach resulted in a predominantly minority, largely homeless, and unemployed or disabled sample. It also resulted in the recruitment of a large number of bisexual, stimulant using, African American men whose role as a potential bridge group requires our attention

Contrasts revealed by common methodologies

- In St. Petersburg, the recruited sample is much younger than the US samples, predominantly IDU, and HIV infection incidence and prevalence rates are reported to be very high.
- There is a tremendous need for interventions and infrastructure development as our data suggests a mature epidemic in the US, and a newer, still expanding epidemic in Russia.

Acknowledgements

- Study funded by the National Institute on Drug Abuse
 - Rich Jenkins (Science Officer)
 - Elizabeth Lambert (Program Officer)
- Principal Investigators and Co-PIs:
 - Sandy Berry (RAND)
 - Steve Shoptaw and Pamina Gorbach (UCLA)
 - Larry Ouellet (UIC)
 - Robert Heimer and Andre Kozlov (Yale and BMC)
 - Bill Zule (RTI)
- Steering Committee Chair:
 - Richard Rothenberg
- Thank you to Allison Ober (RAND project manager), Terry Fain, and Jim Chiesa as well as Douglas Heckathorn (RDS consultant)

Highest HIV Seroprevalence: U.S. MSM and Russian DU (Unwt)

Site	Los Angeles	Chicago	Raleigh/Durham	St. Petersburg
DU	15%(182)	3%(476)	7%(414)	5%(19)
IDU	13%(118)	6%(400)	13%(233)	50%(381)
MSM	60%(229)	30%(40)	33%(57)	22%(63)
MSM/W	10%(244)	4%(114)	11%(110)	21% (14)
SP Only	8% (25)	0% (38)	9% (66)	17% (42)