

HIV Risk and Testing Behaviors Among Injection Drug Users in South Florida

National HIV Behavioral Surveillance Preliminary Results

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National HIV Behavioral Surveillance (NHBS) Background

- In 2000, CDC and partners developed an HIV Prevention Strategic Plan with four national goals to reduce new HIV infections
 - ◆ Goal 4: By 2005, strengthen the capacity nationwide to monitor the epidemic, develop and implement effective HIV prevention interventions and evaluate prevention programs



- ◆ National HIV Behavioral Surveillance System developed

NHBS Background (cont.)

- First funded in 2002
- In metropolitan areas with high AIDS prevalence
- Eligible: states & directly funded cities

NHBS Sites, 2005



NHBS Objectives

Risk Behaviors

- Assess prevalence of and trends in risk behaviors
 - sexual risk behaviors
 - drug-use risk behaviors

HIV Testing Behaviors

- Assess prevalence of and trends in HIV testing behaviors

NHBS Objectives (cont.)

Prevention

- Assess exposure to and use of prevention services
- Assess impact of prevention services on behavior
- Identify prevention-service gaps and missed opportunities for prevention

Operations

- Assess the feasibility of implementing a sampling method for recruiting IDUs in 25 major Metropolitan Statistical Areas
- Identify and assess the feasibility of implementing a sampling method for recruiting heterosexuals in 25 major MSAs

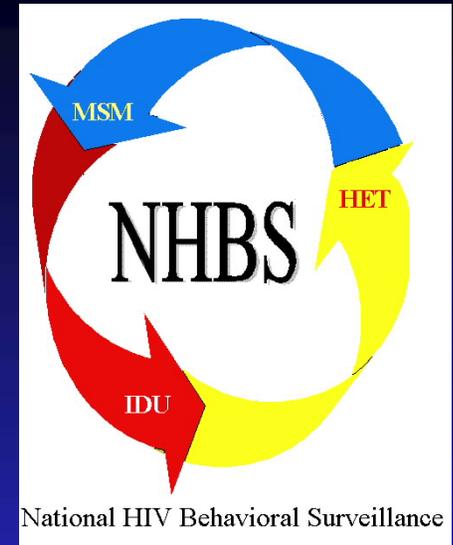
Population

- **Men Who Have Sex with Men (MSM), Injecting Drug Users (IDU), Heterosexuals at Risk of HIV Infection (HET)**
- **Miami-Dade and Broward counties (Palm Beach County residents are eligible but sampling does not target this area)**

Sample size: 500 from each county

Overall Strategy

- **Conducted in 12-month cycles**
 - ◆ **One group per cycle (MSM, IDU, HET)**
 - ◆ **Different sampling methods per cycle/group**
 - ◆ **Formative research done for each cycle**
 - ◆ **Same populations and MSAs over time**
- **Core Questionnaire**
- **Consistent eligibility criteria**
 - ◆ **18 years of age or older**
 - ◆ **Resident of MSA**



Data Collection

■ MSM

- ◆ Venue-based, time-space sampling
Participants in randomly selected venues are systematically recruited and interviewed

■ IDU

- ◆ Respondent-Driven Sampling
- ◆ Participants recruit each other from within their networks

■ HET

- ◆ Venue-Based Sampling
- ◆ Respondent-Driven Sampling

Data Collection

■ Questionnaire

◆ Core Questionnaire:

- ◆ Behavioral risks for HIV, HIV testing, exposure to/use of prevention services

◆ Local Questionnaire:

- ◆ Any other local topics
- ◆ Awareness/use of specific prevention programs

Assessing Characteristics of Population X In ON-going surveillance

The logo for ACXION is displayed in a stylized, metallic, 3D font. The letters are yellow with a gradient and a shadow effect, giving them a three-dimensional appearance. The background of the logo area is a vertical gradient from yellow at the top to red at the bottom. The word "ACXION" is centered horizontally within this area.

ACXION

Interviewing Van



Injection Drug Use Behavioral Surveillance

- Use respondent-driven sampling (RDS)
 - ◆ Chain-referral strategy similar to snowball sampling
 - ◆ Relies on peers to recruit other participants

Characteristics of RDS

- Use of coupon
- Peer recruitment, with quota
- Dual incentive structure
- Final sample independent of “seeds” that began the sample
- Can make estimates to broader population

3001

ACXION

If you are eligible, you can earn **\$20.00!**

Call the telephone number on the back of this card for an
appointment or more information

See back of card for interview locations.
You must call for an appointment.

This coupon starts on:

This coupon expires on:

Steps in RDS

- **Identify and recruit seeds through key informant or outreach**
- **Interview eligible seeds**
- **Train seeds and give coupons**

Steps in RDS (cont.)

- An IDU brings a coupon
- Coupon Manager checks validity of the coupon
- Assess eligibility using the screener
- If eligible, obtain consent
- Complete behavioral surveillance survey
- Take IDU back to coupon manager person
- Ask if s/he is willing to recruit other IDUs
- If agree, train on how and who to recruit
- Participant receives incentive and coupons
- Offer HIV counseling and testing, and refer to other services as needed

Sample Equilibrium

- As the recruitment expands wave by wave the composition of the sample becomes stable, reaching equilibrium
 - ◆ Equilibrium is the point at which the sample composition stops changing
- Bias from the seeds is reduced if the number of waves is large enough

NHBS-IDU Samples

Total Sample = 934 IDUs

Broward:

- Started: June 2005
- Ended: Feb 2006
- 362 IDUs (without seeds)

Miami-Dade

- Started: May 2005
- Ended: Jan 2006
- 572 IDUs (without seeds)

PLEASE NOTE DATA ARE
PRELIMINARY

Criteria for IDU

- Injected drugs (non-prescription) within past 12 months
- Has either...
 - ◆ Physical evidence of recent injection (fresh track marks, scabs, or abscesses)
 - ◆ Knowledge of drug preparation, injection, and needles and syringes

Demographic Characteristics of IDUs

	Total	Broward	Miami
	(934)	(362)	(572)
Age (mean)	43	42	43
Female	29%	34%	25%
Race			
White	29%	47%	18%
Black	50%	41%	56%
Hispanic	17%	10%	22%
Other	3%	3%	4%

Demographic Characteristics of IDUs

- Majority (65%) of sample is over 40
- Over 2/3 of sample have high school education
- Almost everyone born in US
- 57% homeless
 - ◆ 65% in Miami
 - ◆ 45% in Broward
- Half sample has annual incomes less than \$5K
 - ◆ 57% in Miami
 - ◆ 36% in Broward

Characteristics of Sample

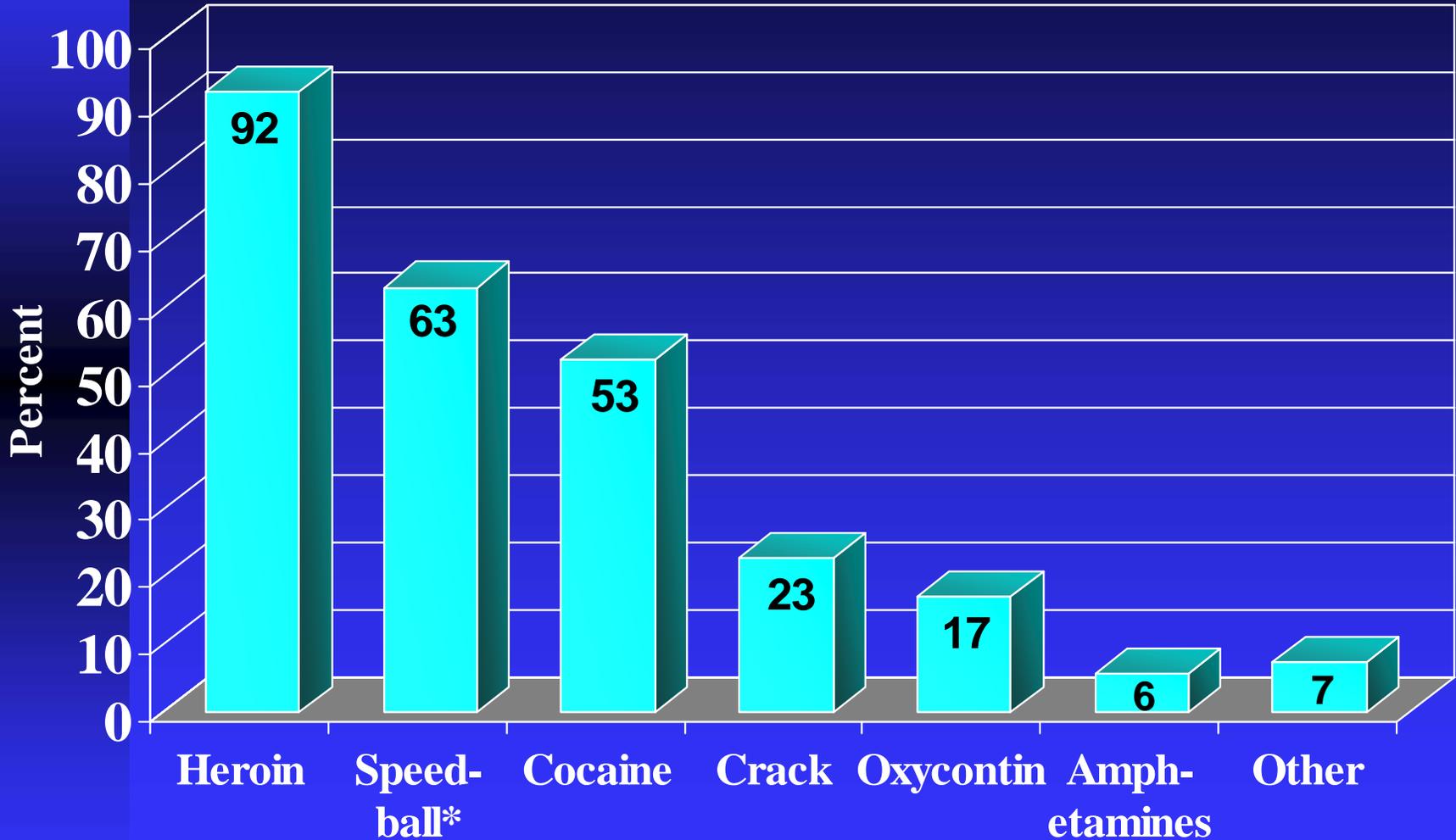
- Most self-identify as heterosexual
- Majority (73%!) of sample is depressed
- 16% self-report being HIV positive
 - ◆ 20% in Broward
 - ◆ 14% in Miami
- 1/3 self-report as hepatitis C (HCV) positive
- 2/3 have not been tested for HCV in past 12 months
- 1/3 have never been tested for HCV
- 1/3 participated in drug treatment in past 12 months
- 1/3 have never participated in drug treatment
- Half (48%) of sample has been incarcerated in past 12 months
 - ◆ 56% in Miami
 - ◆ 34% in Broward

Injection Drug Use Patterns

- **Most of the sample are long-term injectors**
 - ◆ **83% over 5 years**
 - ◆ **Median years of injection is 20 years**

Types of Drugs Injected During Past 12 Months

N=934



*Speedball = Heroin & Cocaine together

Non-Injection Drugs Used During Past 12 Months

- Crack ----- 63%
- Marijuana ----- 62%
- Cocaine ----- 54%
- Downers ----- 46%
- Heroin (smoked/snorted) ----- 46%
- Pain Killers ----- 37%
- Ecstasy ----- 9%
- Amphetamines ----- 9%
- Crystal Meth (injection/non-inj.) --- 8%
 - ◆ 12% in Broward
 - ◆ 5.5% in Miami

*Poppers, Hallucinogens & Club Drugs all < 3.5%

Health Care Experiences of IDUs

- **68% of sample have seen a health care provider in past 12 months**
 - ◆ **Of those who saw health care provider, 68% received recommendation from provider to get an HIV test**
- **Of the HIV+ IDUs:**
 - ◆ **87% have seen an HIV provider in past 12 months**
 - ◆ **74% have ever taken antiretrovirals**

Sexual Risk Behaviors Among IDUs

- **Over half the men (58%) report having more than 1 female sex partner during the past 12 months**
 - ◆ **Median number of partners is 3**
- **Over half of the women (53%) report having more than 1 male sex partner during the past 12 months**
 - ◆ **Median number of partners is 2**

Sexual Risk Behaviors – Male IDUs at Last Sex Act

- **Over 2/3 of men report having unprotected vaginal sex with a female partner at last sex act**
 - ◆ **Younger more risky**
 - ◆ **Higher risk in those recently incarcerated**
 - ◆ **Higher risk among new injectors (< 2 years)**
 - ◆ **Less risk among blacks**
- **Few have unprotected anal sex with women**
- **Few have unprotected anal sex with men**

Sexual Risk Behaviors – Female IDUs at Last Sex Act

- **Over 2/3 of women report having unprotected vaginal sex with a male partner**
 - ◆ **More in Broward**
 - ◆ **Younger more risky**
 - ◆ **Higher risk in crack users**
 - ◆ **Less risk in blacks**
- **Few have unprotected anal sex with men**

Sexual Risk Behavior by HIV Status

- **Decreased risk behaviors reported by HIV-positive IDUs**
 - ◆ **72% of male HIV-negative IDUs reported unprotected vaginal sex with female partner at last sex act**
 - ◆ **39% of male HIV-positive IDUs reported unprotected vaginal sex with female partner at last sex act**

Serosorting Practices Among IDUs

- Multiple logistic regression analyses conducted to examine whether seroconcordant status (HIV+ to HIV+ or HIV- to HIV- vs. otherwise) was related to unprotected sex for:
 - ◆ males w/ main female partners
 - ◆ males w/ casual female partners
 - ◆ females w/ main male partners
 - ◆ females w/ casual male partner
- Dependent variable: reported unprotected vaginal and/or anal sex at last sex act
- Adjusted: demographics, drug/alcohol use in past 12 months, having an STD in the past 12 months, and IDU risk behaviors

Serosorting Practices Among IDUs (cont.)

- Serosorting was only evident among men with their last main female partner
 - ◆ Men were more likely to report unprotected sex with their last main partner of the same serostatus (both partners HIV positive or HIV negative) than with their last main partner of different serostatus (adjusted odds ratio [AOR] 1.87; 95% CI, 1.33, 3.09)
- Serosorting was not identified among men with their last casual female partners or among women with their last main or casual partners

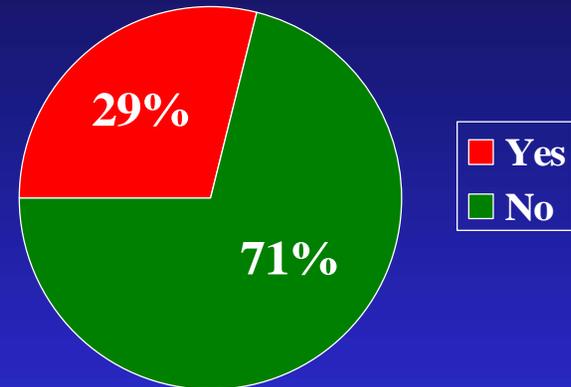
Other Associations with Unprotected Sex

- Having shared IDU equipment with partner was associated with unprotected sex for:
 - ◆ females w/ last main male partner (AOR 3.27; 95% CI, 1.49, 7.18)
 - ◆ males w/ last main female partner (AOR 2.03; 95% CI, 1.23, 3.34)
 - ◆ males w/ last casual female partner (AOR 3.25; 95% CI, 2.01, 5.23)
- Having had an STD in the past 12 months (AOR 2.24; 95% CI, 1.28, 3.92) was also associated with unprotected sex for men and their last casual female partner

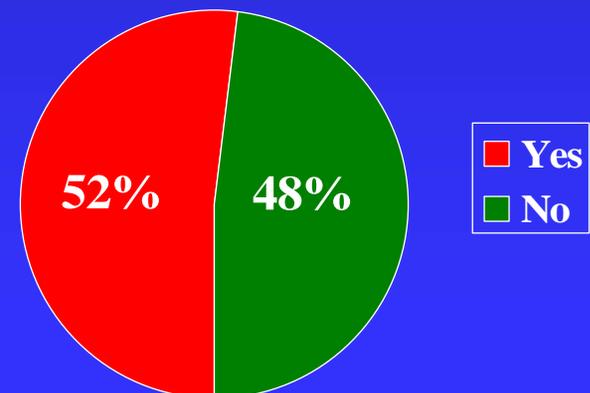
Injection Risk Behaviors at Last Use

- Over one-fourth of sample report reuse of needle/syringe at last injection
- Over one-half of sample report reuse of injection equipment at last injection

Reuse of Needle/Syringe
at Last Injection N=934



Reuse of Injection Equipment
at Last Injection N=934



Injection Risk Behaviors at Last Use

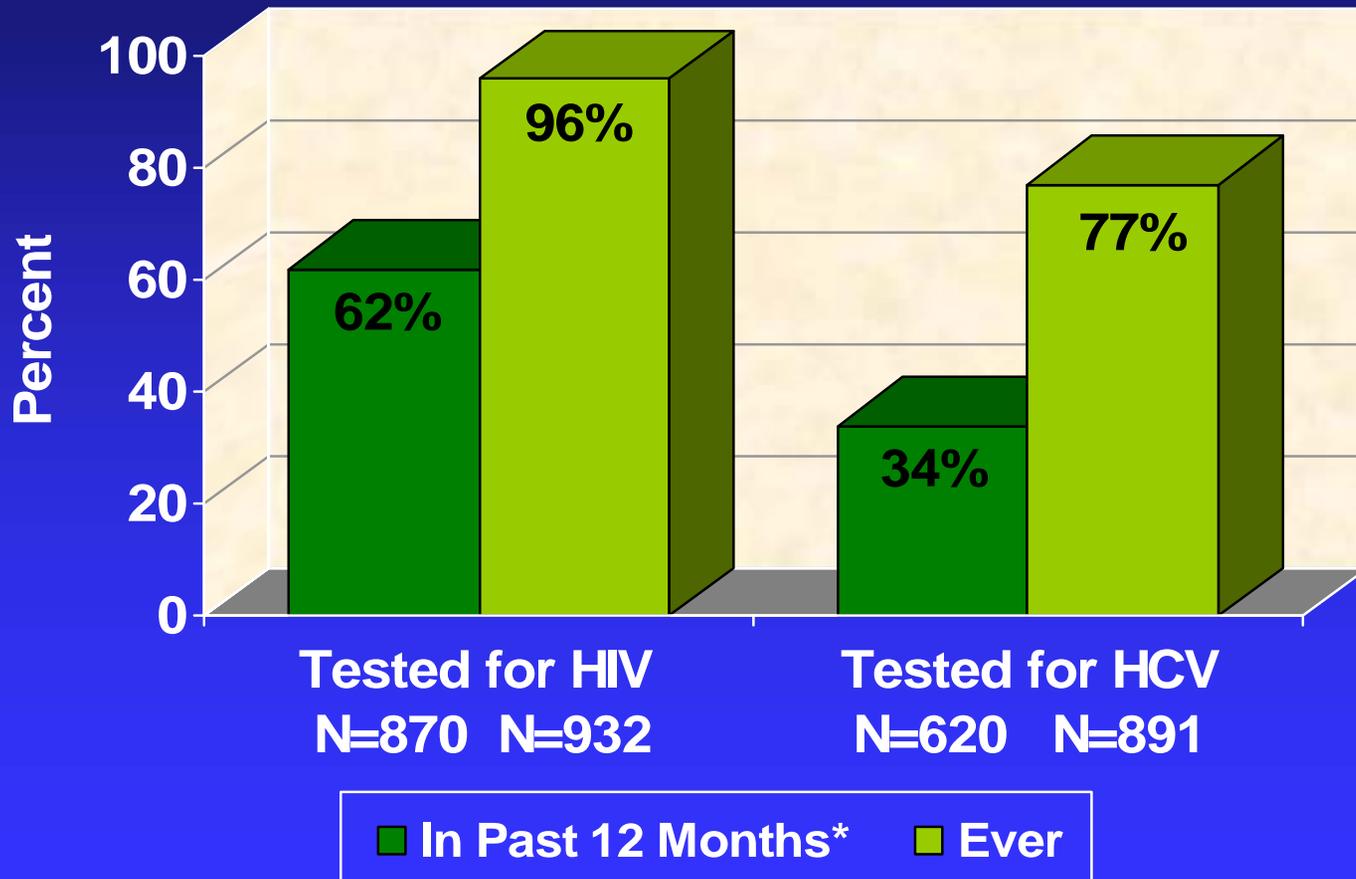
- Blacks are less risky
- Younger are more risky
- Homeless are more risky
- Crack users are more risky
- Incarcerated are more risky
- Persons engaging in risky sex behavior more likely to engage in risky injection behavior

Injection Risk Behavior by HIV and HCV Status

- **Some decreased risk behaviors reported by HIV+ IDUs**
 - ◆ 30% of HIV-negative and 23% of HIV+ IDUs report reuse of needle/syringe
 - ◆ 54% of HIV-negative and 41% of HIV+ IDUs report reuse of injection equipment
- **Increased risk behaviors reported by HCV+ IDUs**
 - ◆ 35% of HCV+ IDUs vs. 25% of HCV-negative/unknown report reuse of needles/syringes
 - ◆ 59% of HCV+ IDUs vs. 49% of HCV-negative/unknown report reuse of injection equipment

HIV & HCV Testing – Lifetime and Past 12 Months

Self-Reported HIV & HCV Testing Rates



* Analysis excludes persons diagnosed with infection over 12 months ago

HIV Testing Experience in Past 12 Months

- Facilities administering most recent test include:
 - Public health clinic (21%)
 - Correctional facility (16%)
 - Hospital (inpatient) (13%)
 - Drug treatment facility (12%)
 - ◆ 20% in Broward
 - ◆ 6% in Miami
 - HIV/AIDS street outreach program (7%)
 - ◆ 11% in Miami
 - ◆ 3% in Broward

Reasons for Not Seeking an HIV Test in Past 12 Months

- **Most frequent reasons include:**
 - ◆ **Low risk for HIV infection (36%)**
 - ◆ **57% in Broward**
 - ◆ **29% in Miami**
 - ◆ **Afraid to find out (31%)**
 - ◆ **Didn't have time (15%)**
 - ◆ **21% in Miami**
 - ◆ **3% in Broward**

Use of Prevention Services

- **Almost no IDUs report receiving free sterile syringes (3%) or free injection equipment (2%) in the past 12 months**
- **Over one-half (56%) of IDUs report receiving free condoms**
 - ◆ **Females, blacks and HIV+s more likely to receive free condoms**
 - ◆ **Crystal meth users less likely to receive free condoms**

Receipt of Individual- and Group-Level Interventions

- Only 11% of IDUs reported receiving individual-level interventions
- Only 6% of IDUs reported receiving group-level interventions
- Similar report of receipt of services from MSM

Sources of Information on HIV Prevention

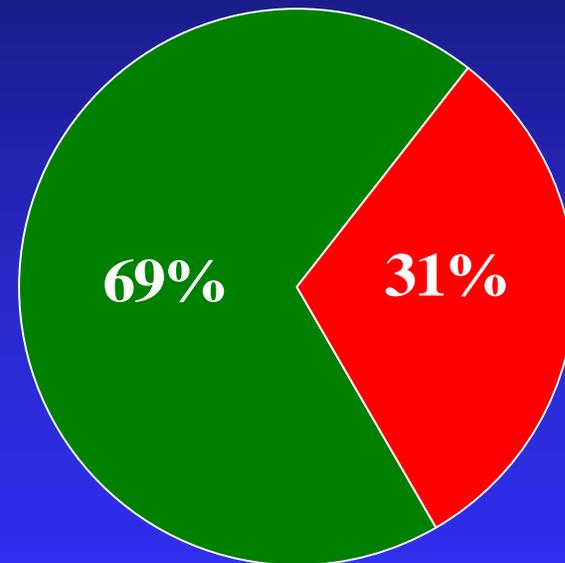
Sources Where IDUs Get Information on HIV Prevention
N=919



History of Drug Treatment

- Almost one-third of sample (31%) NEVER participated in drug treatment
 - ◆ More in Miami
 - ◆ 37% vs. 20%

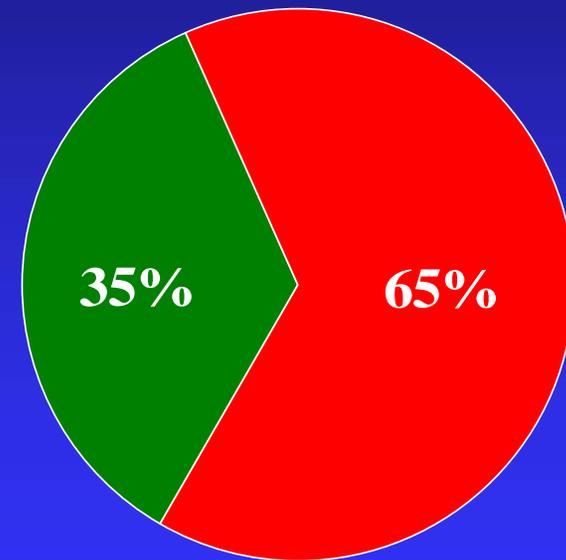
Ever Participated in Drug Treatment
N=934



History of Drug Treatment (cont.)

- Only one-third of sample (35%) participated in drug treatment in past 12 months
 - ◆ Much higher participation in Broward
 - ◆ 59% vs. 19%

Participated in Drug Treatment During Past 12 Months N=934



■ Yes ■ No

Type of Drug Treatment Program Participated in During Past 12 Months

Methadone maintenance	----- 48%
Inpatient drug treatment	----- 41%
Narcotics/Cocaine anonymous	---- 40%
Detoxification	----- 33%
Residential treatment	----- 25%
Drug free outpatient	----- 24%
Drug treatment in jail	----- 6%

Factors Associated with Drug Treatment in Past 12 months

- More likely to be in drug treatment if...
 - Live in Broward
 - Female
 - White
 - High school educated
 - Have income >\$5K per year
 - Use crystal meth
 - Seronegative
 - Not been incarcerated in past year

Reasons Why People Did Not Enter Drug Treatment

Can handle it on their own -----	38%
Do not feel a need to stop using drugs -----	35%
Do not think treatment programs work ---	20%
Habit is affordable -----	20%
Tried a program before and failed -----	17%

Areas of Concern – Multiple Psychosocial Needs of IDUs

- **Long-term injectors in South Florida**
- **Sizeable number of young people injecting**
- **Polydrug use among injectors**
- **Heroin is widely used**
- **Crack cocaine epidemic remains in South Florida**
- **Influx of crystal meth and use of pain killers**
- **High level of homelessness**
- **High level of depression**

Areas of Concern – Community Issues

- **High rate of recent incarceration among IDUs**
- **Low rate of hep C testing**
- **Low rate of drug treatment participation**
- **Little use of prevention interventions**
- **Free syringes/injection equipment not available**

Areas of Concern – Risky Behavior

- **High rates of self-reported sexual and/or IDU risk behaviors particularly among...**
 - ◆ **Younger IDUs**
 - ◆ **Homeless IDUs**
 - ◆ **Crack using IDUs**
 - ◆ **Incarcerated IDUs**
 - ◆ **HCV + / HIV+ IDUs**

Some Good News

- **Majority of IDUs tested for HIV in the past 12 months and almost all have tested in their lifetime!!**
- **Research studies conducted in Miami and U.S. have shown that there are evidence based interventions that can decrease risk behaviors!!!**
- **We have observed a decrease in new cases attributed to injection drug use.**

Limitations

- **Data are preliminary**
- **Data are predominantly self-reported and subject to recall bias**
- **Data are cross sectional and time order cannot be established**
- **Findings are based on unweighted data**

Next Steps

- **Need to bring multiple community players to the table: criminal justice, drug treatment, HIV prevention, HIV care, hep C care, housing and homelessness, crystal meth taskforce, etc.**
- **Try to intervene with new and young injectors**
 - **Before acquisition of hep C and HIV**
- **Need to increase testing and education for hep C**
- **Need to address barriers to drug treatment participation**
- **Need to increase harm reduction approach throughout community**
- **Need to address intervention strategies for HIV+ IDUs**

THANK YOU!

**A BIG THANK YOU TO THE
IDU BEHAVIORAL SURVEILLANCE TEAM
FOR THEIR OUTSTANDING WORK!**

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