turning knowledge into practice

Since 1994: Our Successes and Scientific Advancements in Substance Abuse Treatment Evaluations and Interventions in NC

Wendee M. Wechsberg, PhD
Senior Director, SATEI Program
RTI International

Substance Abuse Treatment Evaluations and Interventions (SATEI)

- Since 1994, we have been conducting community-based intervention research to reduce and prevent drug use, HIV, and other health disparities among underserved populations
- In North Carolina:
  - African American, Hispanic
  - Injecting and crack drug users, meth users, MSM, MSM-W
  - Women, mother/child, HCV, social networks, pregnant, teens, college students
- South Africa Adaptations started in 2001:
  - Women substance users
    - Pretoria Sex Worker pilot
    - Women's Health CoOp
    - Cape Town Women's Coop pilot
    - Cape Town–methamphetamine teen study
    - Men in gangs and on methamphetamine
  - 2008 Couples Health CoOp (Women's, Men's & Couples intervention)
- In Russia, adaptations for injecting drug using women in treatment started in 2007

SATEI and US Project Staff

- Dr. William 'Bill' Zule
- Dr. Hendree Jones
- Rachel Middlesteadt Ellerson
- Felicia Browne
- Curt Coomes
- Amy Hernandez
- Winnie Luseno
- Winona Poulton
- Gail Gullotti
- Jeff Novey
- Nat Rodman
- Dr. Tracy Kline
- Dr. Scott Novak
- Dr. Georgiy Bobashev
- Latoya Newsom
- Kayla Dove
- Henrietta Preasha

Phases of Substance Use

Reaching Users at different phases with risky behaviors

Experimental (opportunity)

Recreational (social)

Continued Use (to avoid other things)

Addiction (obsessive use with ill regard to consequences)

Multi-Risk Factors of HIV and Drug Use

- Needle use
- Substance use
- Sexual activity
- Multi-risk
- Gender inequity
- Poverty
- Gender-based violence

Challenges for women who use drugs & drink are even greater for HIV prevention

- Self-efficacy, confidence & personal power
- Relationships
- Poverty, housing, education
- Gender roles
- Cultural expectations
- Pregnancy & parenting
- Lack of knowledge and skills
- Gender-based violence
- Co-morbidity, health access
- Resources locally
- Stigma from service providers

Methodologies Used in SATEI

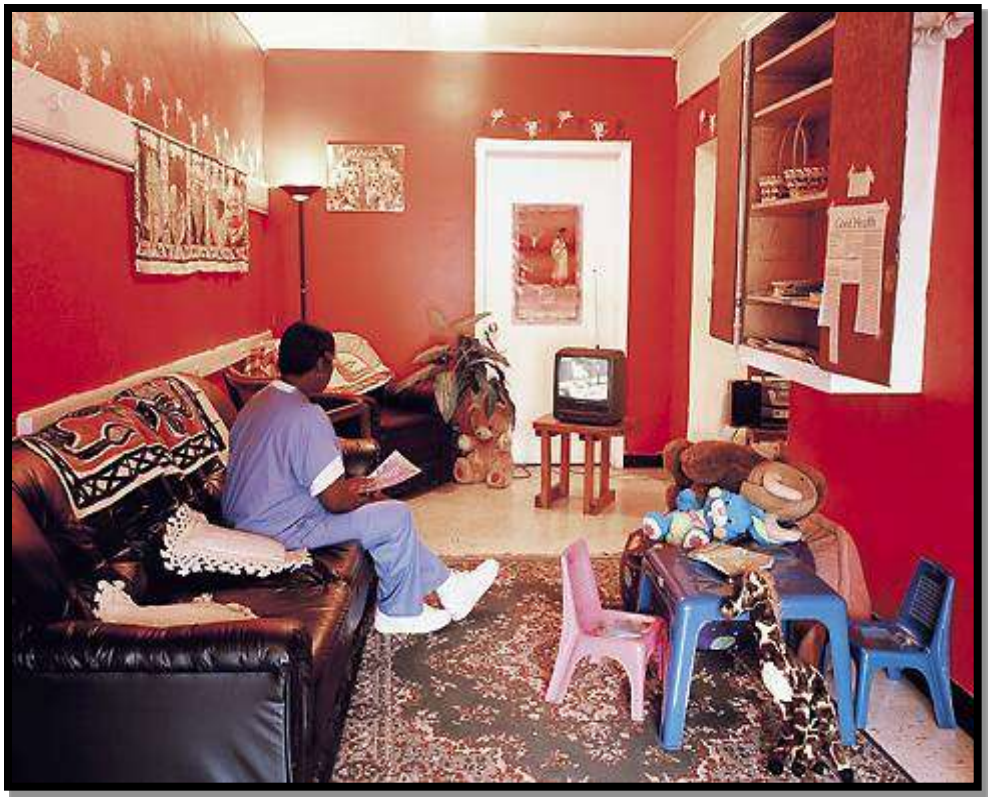
- Formative (focus groups, in-depth interviews, expert panels)
- Community participation (CABs and TAB)
- Pretesting, adapting instrumentation, CAPI, ACASI
- Adapting, revising, modifications and pilot testing interventions
- Manual development, community site and indigenous staff planning
- Randomized trials, repeated measures
- Social networks, modeling, various sampling designs
- Costs and cost effectiveness

The NC CoOp Study: Outreach Workers' Store Front

Humble beginnings….

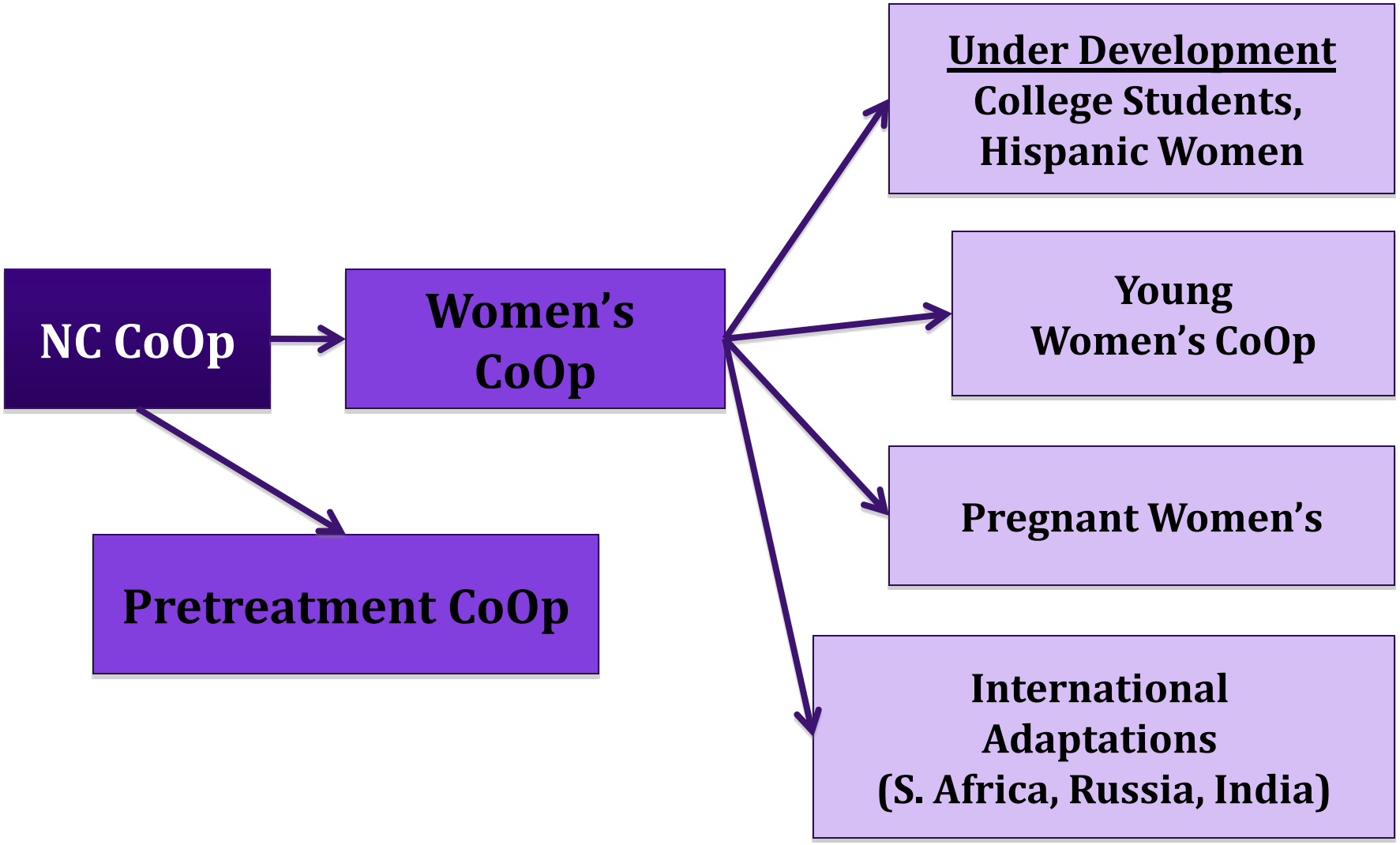
U.S. Field Sites

Durham, NC (est. ~1995)

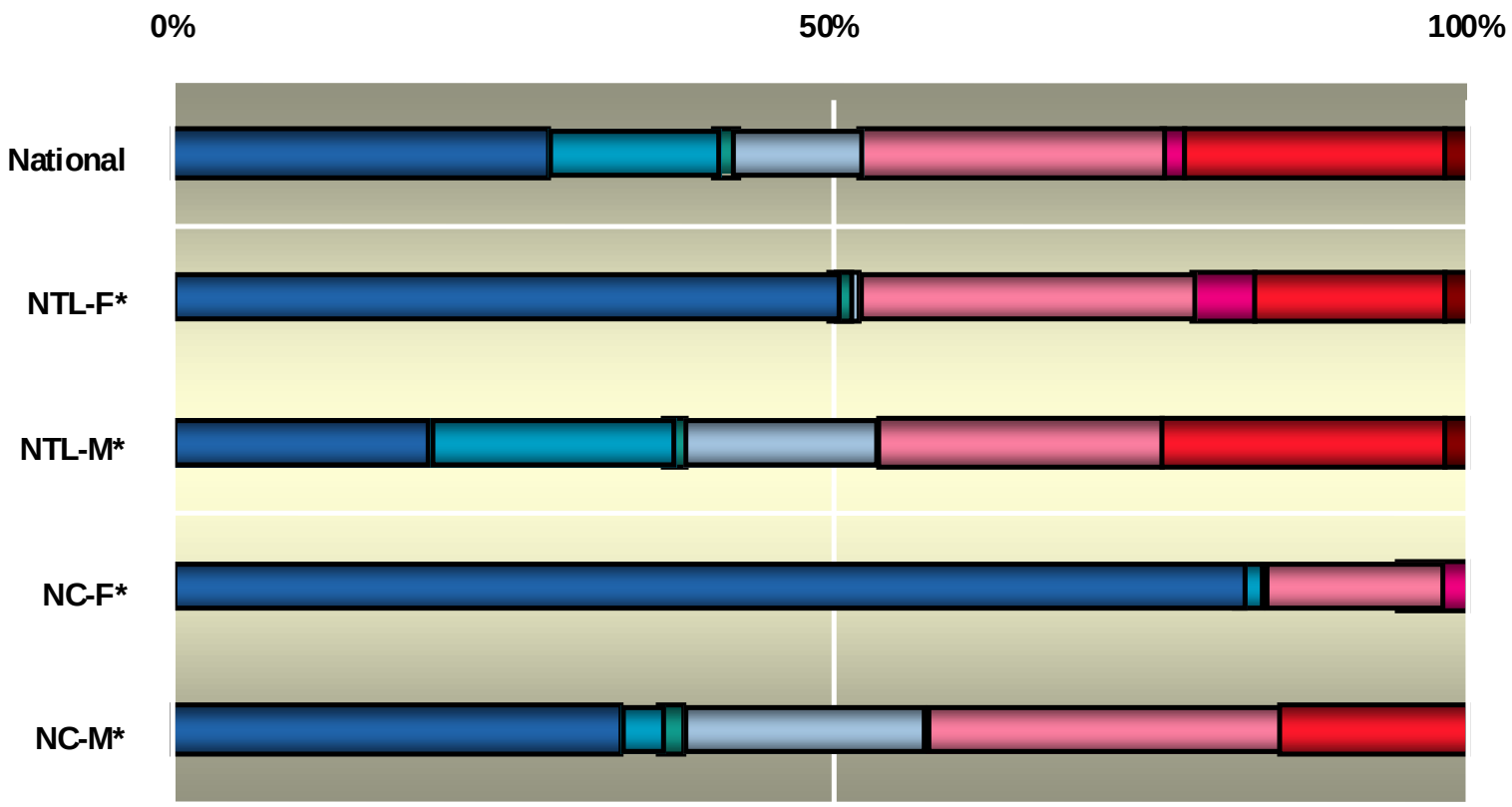


Raleigh, NC (est. ~1999)

Science builds upon itself and studies do too



Comparison of Risk Groups by Gender for Nation and NC



Source: NIDA Cooperative Agreement
(1995 Q1 dataset, n=1,323 women and 3,122 men; NC cohort, n=96 women and 164 men)

The cost and cost-effectiveness of an enhanced intervention for people with substance abuse problems at risk for HIV

The additional cost of implementing the enhanced intervention is relatively small and compares favorably to a rough estimate of the benefits of reduced days of drug use. Thus, the enhanced intervention should be considered an important additional component of an AIDS prevention strategy for out-of-treatment substance abusers.

G A Zarkin, R C Lindrooth, B Demiralp, and W Wechsberg Health Serv Res. 2001 June; 36(2): 335–355.

Woman-Focused HIV Prevention started in US (1998 to June 2010)

NIDA R01 011609

Known as the Women's CoOp

The key concepts & components:

- Addressing drug dependence as a state of oppression
- Supporting recovery and treatment referrals
- Developing personal goals of protection & independence
- Developing personal skills in making choices
- Acting on goals and choices
- Developing positive supports to maintain them

"Empowerment-based: Step-by-step"

Overview of the Women's CoOp

Theoretical bases	**Black feminist theory; empowerment theory**
Original target population	**African-American women who used crack cocaine and other drugs and were not enrolled in substance abuse treatment**
Key intervention characteristics and core elements	**woman-focused cue cards; role-playing and rehearsal, including condom demonstration and practice; individualized risk assessment and action plan; and active referrals to community resources**
Delivery methods	**In person**
Deliverers	**African-American women who were trained to deliver the intervention**
Unit of delivery	**2 one-on-one counseling sessions and 2 group sessions**
Duration	**2 to 4 weeks**
Intensity	**4 sessions; 3 to 4 hours total intervention time**

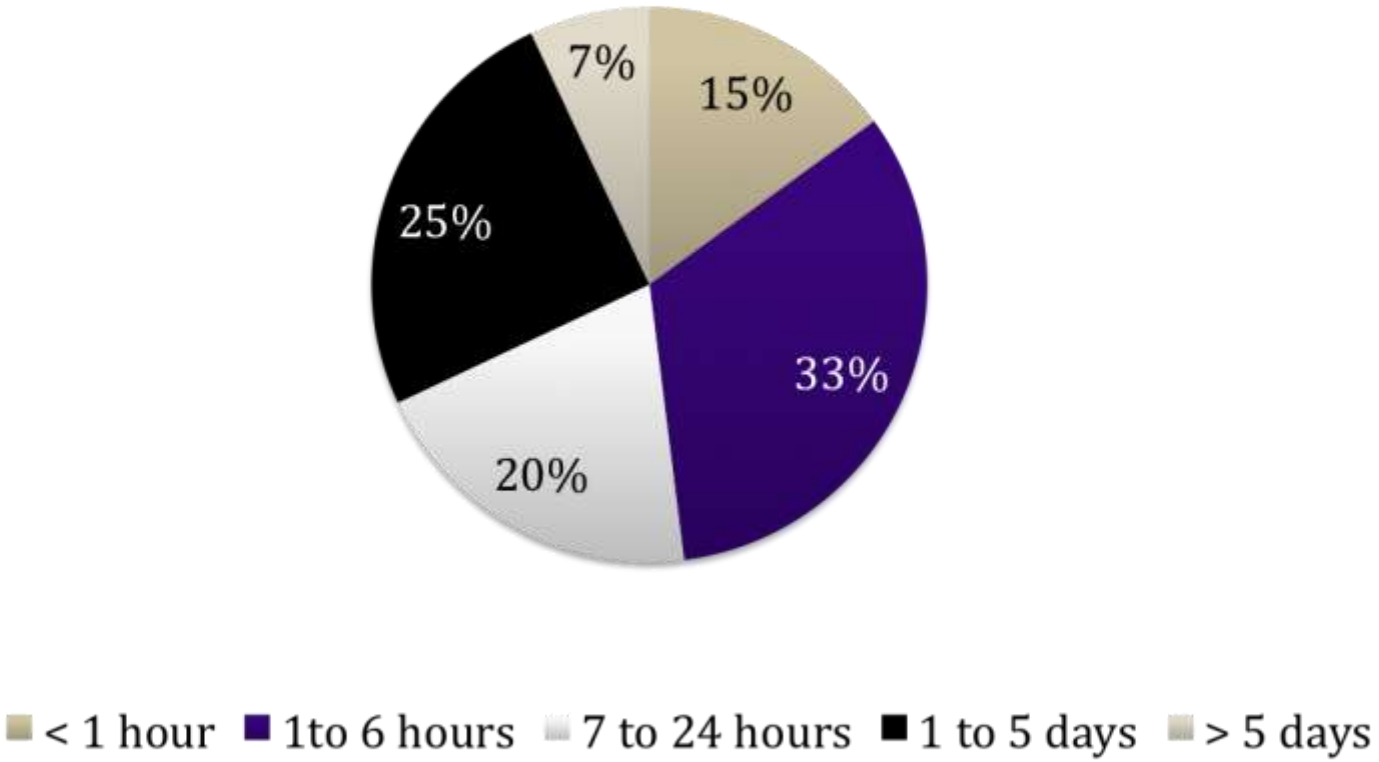
Crack Use and HIV Risk

"9% of non-injecting women are HIV seropositive"

n=557

Wechsberg, W.M., Dennis, M.L., & Stevens, S.J. (1998). "Cluster Analysis of Women Substance Abusers in HIV Interventions: Characteristics and Outcomes." *American Journal of Drug and Alcohol Abuse*, Vol. 24, No. 2, pp. 239-257.

Length of Average Crack Run



NIDA Women's CoOp (1998-2002)

- Crack use and sexual risk behaviors in all three study groups decreased significantly between baseline and follow-up interviews.
- The Woman-Focused group reported significantly greater reductions in homelessness and increases in employment.

Wechsberg, W.M., Lam, W. K., Zule, W. A., & Bobashev, G. (2004). Efficacy of a Woman-Focused Intervention to Reduce HIV Risk and Increase Self-Sufficiency Among African-American Crack Abusers. *American Journal of Public Health, 94*(6), 1165-1173. NIDA grant R01 DA 011609

African American Women Still the Most Vulnerable to HIV

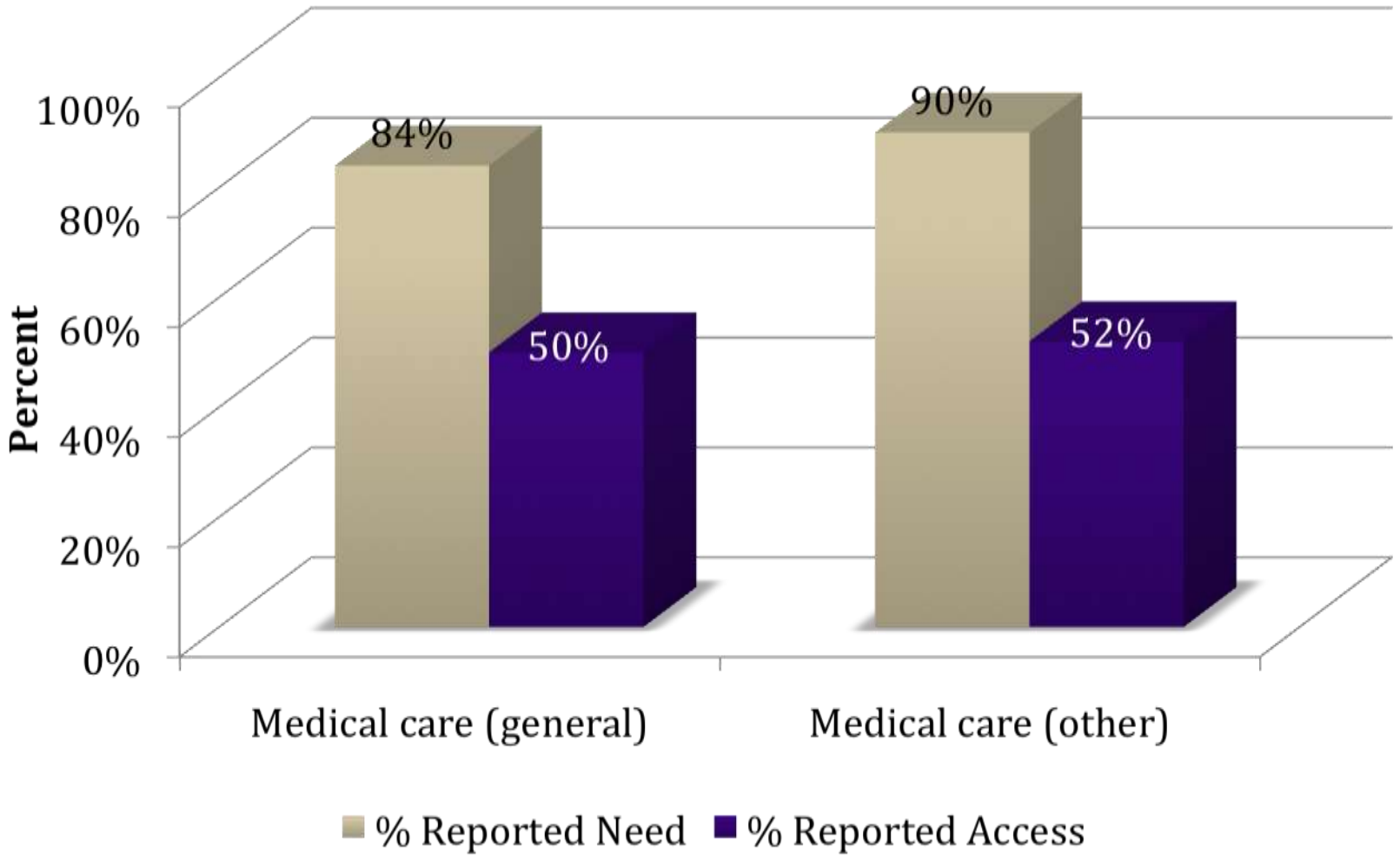
- In 2007, represented 60% newest HIV cases
- HIV/AIDS is one of the leading causes of death
- Heterosexual contact leading risk factor
- Social and contextual factors contributes to racial disparities in HIV rates
- African American women in the South with a history of STI, crack use and sex partners who use drugs are all contributors to the higher rates of HIV.
- Women who use crack, exchange sex, have lower education and are homeless, have increased risks

Best-Evidence Interventions

- CDC has been publishing lists of interventions that work with high risk populations (Lyles et al., 2007)
- African American Women (Sterk et al, 2003; Wingood & DiClemente, 1998; Wechsberg et al. 2004)
- However, all of the "best evidence" intervention studies relied on outcomes measured at intervals ranging from 3 to 18 months post-intervention.

Re-Recruitment of 446 Women from 2 to 7 years follow-up

Need vs. Access to Medical Care



Women's 1 to Women's 2

Variable	Women's 1	Women's 2	Paired Test Significance
Days Crack Use in Last 30	**18.2 (9.8)**	**13.4 (10.88)**	**<0.001**
Days Alcohol Use in Last 30	**15.8 (12.1)**	**10.9 (10.4)**	**<0.001**
Sex Partners in Last 30 Days	**3.6 (10.5)**	**2.2 (6.8)**	**0.02**

[1] Mean (SD) value format except where labeled with %.
Some values may not total to 100% due to missing values.

Substance Use During Sex by Study

Variable	Women's 1	Women's 2	Paired Test Significance
Times Used Alcohol During Sex	4.3 (7.6)	3.8 (19.4)	NS
Times Used Crack During Sex	6.0 (8.2)	4.7 (11.3)	0.03
Unprotected Sex Acts	9.8 (11.7)	6.9 (13.5)	<0.001

Woman Focused Intervention Addressed Multi-dimensional Risk Behaviors

- Homelessness
- Employment
- Alcohol Use
- Crack Use
- Sexual Risk (unprotected sex & trading sex)

Characteristics of Latent Classes at CoOp I and II

	High Risk (I and II)	Low Risk (I and II)
Homeless	↑	↓
Unemployed	↑	↓
Alcohol Use	↑	↓
Crack Use	↑	↓
Unprotected Sex	↑	↓
Traded Sex	↑	↓

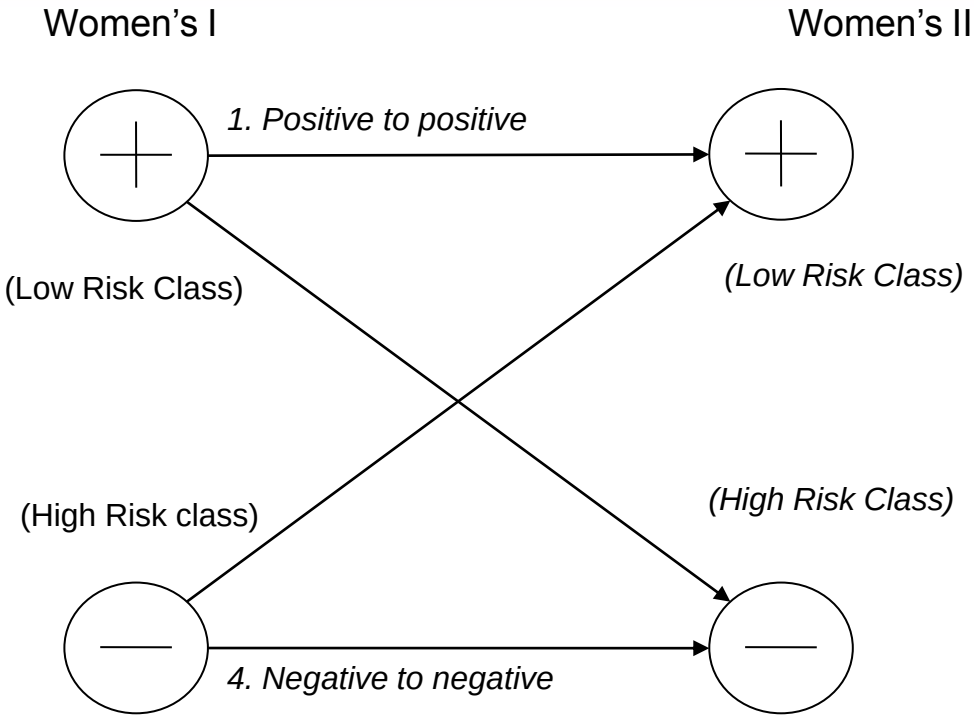
Intervention effects tend to cluster across multiple outcomes

Retention between CoOp I and CoOp II

- High risk class was 35% *MORE* likely to be retained than the low risk class (OR=1.35, 95% CI, 0.95-1.89) though this effect was marginally significant (P=.08)
- There were no differences in retention among conditions, though Women's CoOp condition was 73% less likely to be retained than control. (P=.127). In contrast, the NIDA standard condition was 9% more likely to be retained than control (P=.667).

Women exhibiting more favorable outcomes at end of Women's CoOp and those in the enhanced condition were LESS likely to retained.

Sustainability In Women's CoOp



Long-term determined by 2 key transitions:

1) Positive from I to II--durable effects 25% (n=101)
2) Negative (I) to Positive (II)--sleeper effects 15% (n=61)
3) Positive (I) to Negative (II)—eroding effect 23% (n=88)
4) Negative (I) to Negative (II)—treatment resistant 37% (n=150)

No Significant Changes in Risk Status by Condition (p=.105)

Change in Risk from WI to WII	Control	NIDA	Women's
Low→Low (Durable)	20.3%	30.9%	24.6%
High→High (Resistant)	42.8%	30.2%	39.7%
High→Low (Sleeper)	18.8%	22.1%	25.4%
Low→High (Erosion)	18.1%	16.9%	10.3%

Summary of Results

- We know that intervention outcomes tended to cluster into two classes: High Risk and Low Risk outcomes at both Women's I and II assessments.
- We found a trend (p=0.08) toward differential attrition across latent classes and intervention conditions
  - Women in the high risk class were more likely to be retained.
  - Women in the Woman-focused intervention were the least likely to be retained.
- About ¼ of those in a positive outcome group at Women's I remained positive at Women's II

Summary of Results (cont'd)

- The largest group consisted of those that were treatment resistant (37%)
- No difference in these transitions in risk status over time by condition
  - Interpret results cautiously because higher rates of attrition in Low Risk group and those assigned to the Women's enhanced condition.

NIDA Women's CoOp after 10 Years

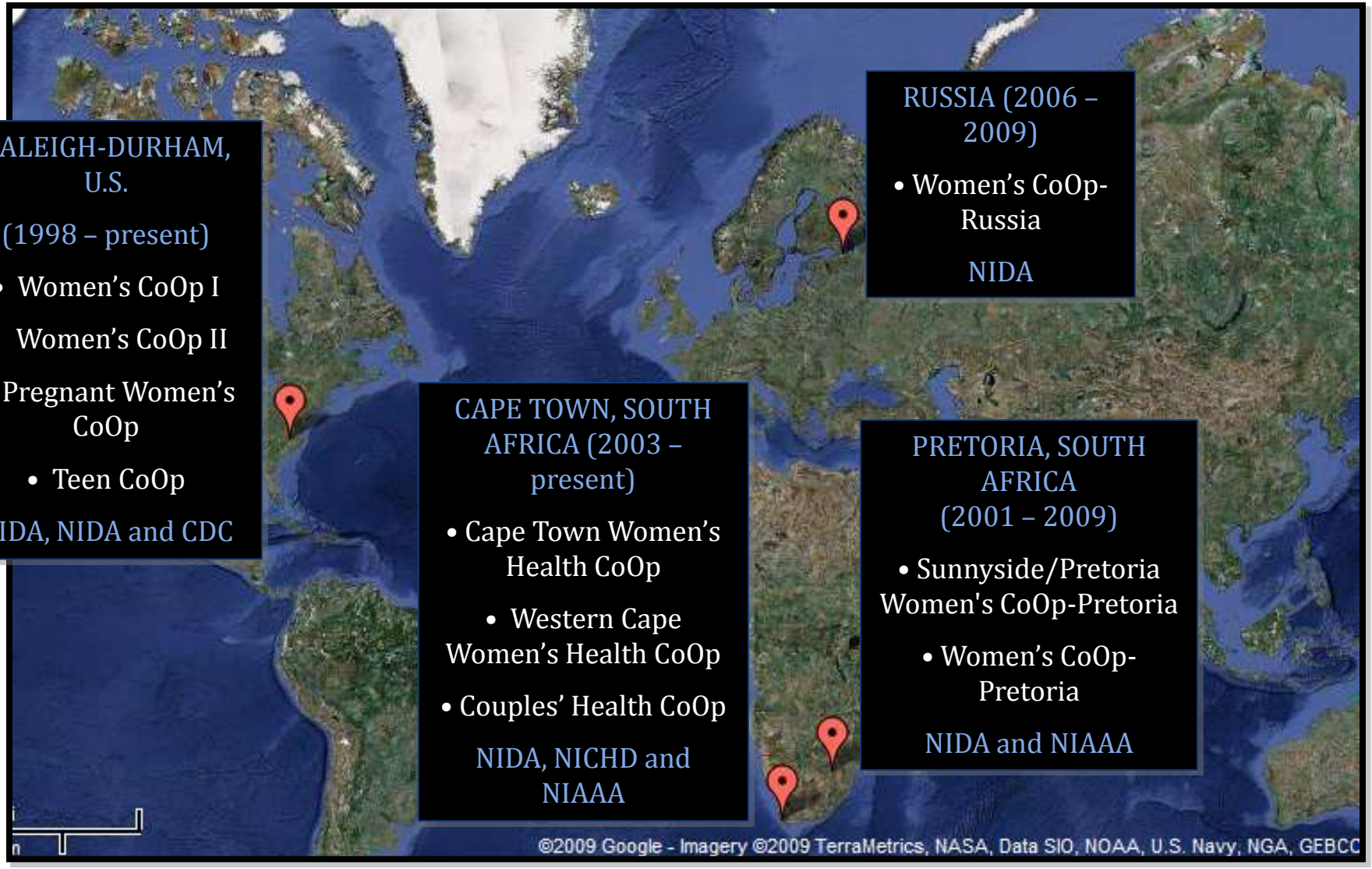
Good news/Bad news

- Women in the Women's and NIDA groups faired better over time than women in the control group.
- Having an intervention better than none
- Crack, alcohol and unprotected sex reduced, but risk remains.
- Regular on-going boosters will be needed where treatment barriers exist
- However, 50% of the women are still using crack demonstrating its serious addictive nature.

Adaptations of the Women's CoOp

- The Women's CoOp has been adapted for various populations, including:
  - Injection drug-using women (St. Petersburg, Russia)
  - Sex workers (Gauteng Province, South Africa)
  - At-risk women – for groups and individuals (Cape Town, South Africa)
  - Pregnant African-American women in drug treatment, African-American college students and Latinas (North Carolina)
  - Women released from jail (Cook County, Illinois)

Diverse Sites and History of the Women's CoOp



Innovations in Pregnant Women's CoOp

- Work within drug treatment settings & includes HIV+ session
- Participatory to their lives "Their voices"
- Enhanced graphics and **Vignettes** make intervention interesting and real to them
- Four sessions

NIDA grant 1R01 DA020852

Drug Use Characteristics

Drugs Used (last 12 months)

- Tobacco 80%
- Alcohol 64%
- Marijuana 66%
- Crack 35%
- Pain medication without Rx 22%
- Pain medication with Rx 19%
- Cocaine 11%
- Heroin 8%
- Ecstasy 8%
- Methamphetamine 3%

Reasons for Entering Treatment

- Want healthy baby 88%
- Get self clean 83%
- Child services will take baby 58%
- Baby's father disapproves 39%
- Don't have enough money 20%
- Dealers won't sell to you now 17%
- People don't share now 17%
- Parole/probation testing 17%
- Men won't trade sex now 14%

Need for Services

Homelessness

- 68% reported being homeless within the past 12 months
- 41% reported being homeless at the time of survey

Child Protection Services

- 41% had ever had an open case with CPS
- 22% currently have an open case with CPS
- 25% had a child taken by CPS
- 44% had a child go to live with someone else

Employment and Income

- 76% of participants were unemployed
- 44% received some sort of government aid
- 51% received money from family or friends

Other Services

- 57% of participants reported wanting training for caring for a newborn
- 33% of participants reported being on parole, probation or TASC

Young Women's CoOp: Formative to RCT

Funded by the
Centers for Disease Control and Prevention

Overview of Activities Completed

- 20 In-depth Interviews
- 4 Focus Group Discussions
- 4 Teen Advisory Board (TAB) meetings
- 5 cognitive pretests with TAB
- Filming Vignettes for Intervention
- Community Advisory Board (CAB) meetings
- Expert Panel meetings

Example Findings

- Males are the driving force behind a lot of the decisions females make about school, drugs, sex and gangs, while friends are a close second.
- Sex trading is pervasive and is a common way for young women to make money and acquire other goods (food, clothing, etc.).
- Pregnancy, older males and “the streets” are the primary reasons why female teens drop out and stay out of school.
- Some teens get pregnant on purpose to “keep a man”.
- Many teens learn about sex and STIs through first-hand experience.

Example Findings

- A lot of violence in and around their communities
  - Gang violence: Attraction to gangs because of the colors, the sense of belonging ("family"), protection, and the opportunity to meet attractive males.
- Rape is rarely reported. If teens tell anyone, it will be a close friend or (sometimes) a parent.
- Alcohol and drugs are ways that female teens cope with life stress. Common drugs include alcohol ("liq"), tobacco, marijuana ("weed"), ecstasy ("dumpers"), prescription drugs, and cocaine

Teen Advisory Board

Example Vignette

Challenges of Teen Pregnancy

Implications

Lack of basic health care and access to substance abuse treatment and, the feminization of HIV among minority childbearing women in the South forces women's issues to be at the forefront of the Public Health Agenda.

We will continue this work and further develop our work with Hispanic women and couples. We will also begin testing the Women's CoOp with RBT.