

## Outcomes from an Alcohol Prevention Trial for Low-income, Ethnic Minority, Urban Youth: Project Northland Chicago

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## Presenter Disclosures

Cheryl Perry, Kelli Komro & Sara Veblen-Mortenson

(1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

Perry, Komro & Veblen-Mortenson are co-authors on the Project Northland intervention materials and receive royalties from Hazelden Publishing, a non-profit treatment and prevention services organization that publishes and provides training for the Project Northland intervention materials.

## Project Northland: An alcohol use preventive intervention

- n Project Northland: Original Trial in Minnesota
  - l Conducted in northeastern Minnesota (rural, low to middle income, mostly white)
  - l Area with high rates of alcohol-related problems
  - l Randomized controlled trial—10 intervention & 10 control school districts
  - l Reduced monthly & weekly alcohol use, multi-drug use, and risk factors at the end of 8th grade
  - l Designated a model program and recommended by the Centers for Substance Abuse Prevention (CSAP) and the U.S. Department of Education
  - l Disseminated by Hazelden

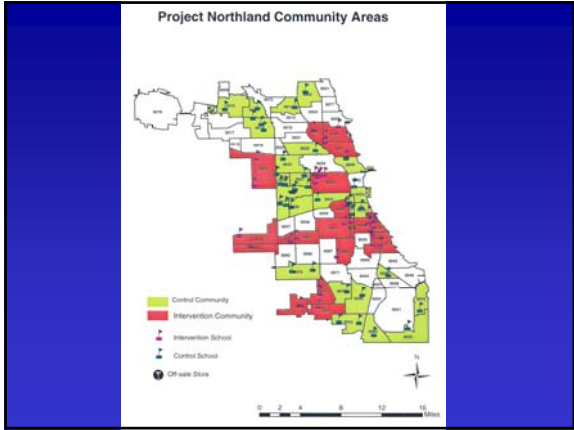


## Goal: To adapt, implement and evaluate an alcohol preventive intervention for urban young adolescents



## School Recruitment Selection Criteria

- n Chicago Public Schools
  - l District approval/cooperation prior to grant submission
- n Grades 5-8
- n Mobility rates < 25%
- n Larger schools
- n Excluded magnet schools



### Randomized Controlled Trial

	2002-03 6th	2003-04 7th	2004-05 8th
10 Intervention (29 schools)	$O_1$ $X_1$ $O_2$	$X_2$ $O_3$	$X_3$ $O_4$
12 Control (32 schools)	$O_1$ $O_2$	$O_3$	$O_4$

### Chicago Study Sample

- n N=5812
- n 11.8 mean age at baseline
- n 50% boys
- n 43% African American
- n 29% Hispanic
- n 72% low SES
- n 47% lived with both parents
- n 74% reported English as primary language at home

- ### Intervention Components
- n Three-year, multi-component, prevention program for 6-8<sup>th</sup> graders, their families, schools, and communities
    1. Peer-led Curricula
    2. Parent Education and Involvement
    3. Peer-led Activities
    4. Community Organizing



**Facts and Myths**

**Advertising**

**Peer Pressure**

**Consequences**

**LET'S PLAY THE PROGRAM**

Go For It!

Thinking About Not Drinking

That's Life

Ya Gotta Have Friends

What If ...

What's Cool In School

**Don't get SURPRISED!**

**Get Teens SUPERVISED!**

COMPUTER

You may be surprised to know that teens who are unsupervised after school are more likely to drink alcohol than those who are supervised.

*So what can your teen do after school?*

- After school activities through school or community programs
- Sports
- Volunteer at an after-school program for younger children or other volunteer work
- Go to the library to do homework
- Help with preparing dinner

*What if your child needs to come home after school?*

*Try making some rules such as:*

- Teens must call and check in with an adult when they get home.
- Teens must contact an adult before leaving home.
- No friends at home unless an adult is present or only one or two trusted friends allowed at home without an adult present.
- Older teens cannot give alcohol or cigarettes to younger teens.

Your parents work. Let's go to your house and have a beer and watch TV.

GO! ...

Aw, you're lay fall!

No, I'm NO FOOD!

Project Northland Chicago  
1300 South 2nd Street, #300  
Minneapolis, MN 55454

RETURN SERVICE REQUESTED





## Community Action Team



## Merchant Pledge



## Park Event



## Walk Against Underage Drinking



## Evaluation Components

- n Annual classroom-based surveys (6th-8th grades)
- n Parent surveys through classroom
- n Community leader survey
- n Alcohol purchase attempts





### Alcohol Purchase Attempts: Follow-up

- n 27% of alcohol outlets sold to young-appearing buyers (0-73%)
- n Reduction in **Control** neighborhoods:
  - | 2 percentage points
  - | <1% reduction
- n Reduction in **Intervention** neighborhoods:
  - | 21 percentage points
  - | 46% reduction
- n Reduction in **Intervention neighborhoods where Merchant Pledges** were conducted (5 of 10):
  - | 23 percentage points
  - | 64% reduction



### Student Survey

- n Classroom survey following standardized protocol, read aloud
- n Response rates: 91%-95%
- n N = 3802-4259 per year
- n Cohort response rate: 61%



### Alcohol Use Measures

End of 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grade:

- Past year
- Past month
- Past week
- Heavy use (5+2 weeks)
- Ever been drunk

### Goals for Outcome Analyses: Person-centered Approach

- Exploration of different patterns of use
- Examine whether intervention was effective in preventing onset and higher risk patterns of alcohol use
- Examine differential effectiveness by gender and racial/ethnic subgroups

### General Growth Mixture Modeling with Mplus

STEP 1:

- Identify heterogeneous classes, or patterns, of alcohol use initiation and progression

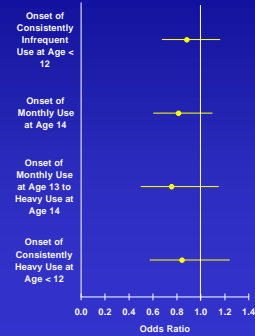
STEP 2:

- Multinomial logistic regression of class membership probabilities on treatment group assignment
- Controlled for baseline alcohol use and low-income
- Two level model
  - Individual level: Alcohol trajectory class membership
  - School level: Intervention effects, baseline use
- ML estimation

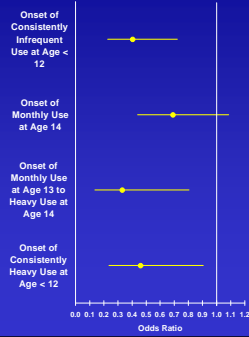
## Alcohol Use Trajectory Classes

1. No Use (63.0%)
2. Onset of Consistently Infrequent Use at Age < 12 (15.9%)
3. Onset of Monthly Use at Age 14 (8.9%)
4. Onset of Monthly Use at Age 13 to Heavy Use at Age 14 (5.6%)
5. Onset of Consistently Heavy Use at Age < 12 (6.6%)

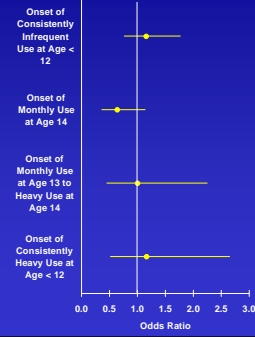
## Intervention Effects on Alcohol Use Trajectory Class Membership



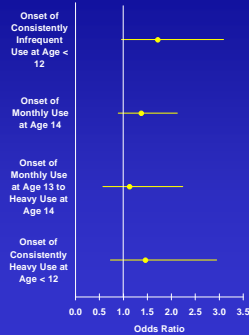
## Intervention Effects on African American Boys' Alcohol Use Trajectory Class Membership



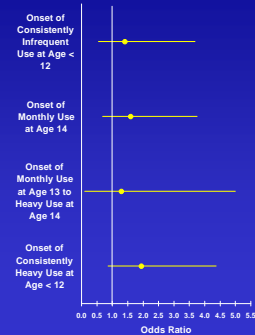
## Intervention Effects on African American Girls' Alcohol Use Trajectory Class Membership

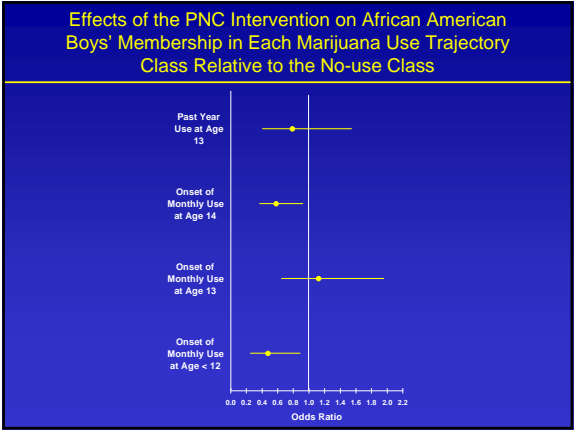
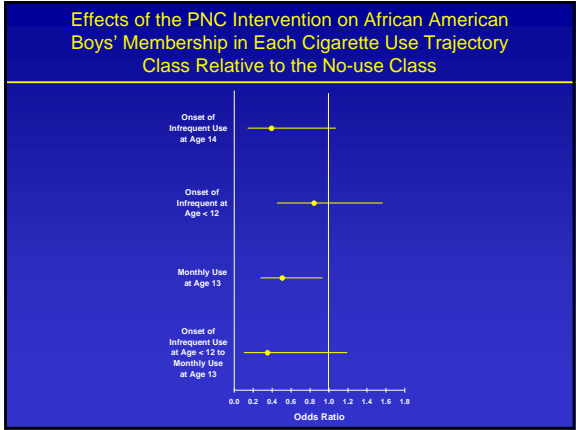



## Intervention Effects on Hispanic Boys' Alcohol Use Trajectory Class Membership



## Intervention Effects on Hispanic Girls' Alcohol Use Trajectory Class Membership








## Summary

- 63% of sample consistent non-user
- Intervention group less likely to be in each alcohol use class compared to the control group, but not statistically significant
- Significant intervention effects among African American boys; no intervention effects among Hispanic adolescents
- Community organizing reduced alcohol purchase attempt rates
- Difficult, but feasible, to conduct intense community-wide research in inner-city areas



## Next Steps

- Why differential effects?
  - Contextual differences
  - Moderation
  - Moderated Mediation
- Follow-up survey of 17-18 year olds
- Examination of long-term effects
- Etiology by racial/ethnic subgroup



# YOUNG ADULTS for a HEALTHY CHICAGO



## Research Team

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## Thank You

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