

**Substance use trajectories across
early adolescence:
Linking intervention, family,
and peer processes.**



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Goals

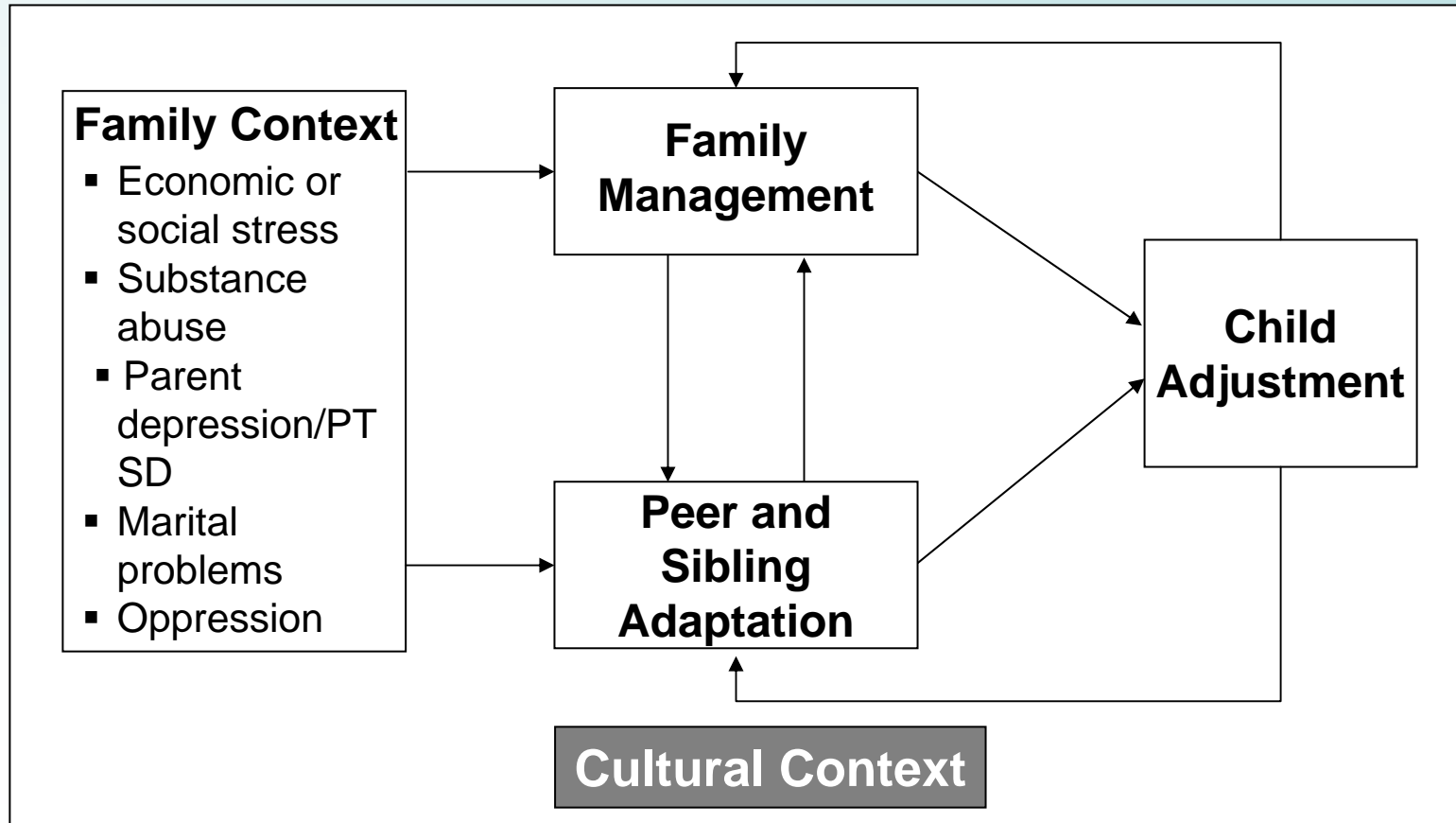
- Present overview of Adolescent Transitions Program, an ecologically-based model for substance use intervention
- Present longitudinal outcome data
 - Variable-centered model, focusing on intervention effects on:
 - 1. Substance Use initiation
 - 2. Level of substance use once initiated
 - Person-centered model, examining heterogeneity in patterns of substance use development

Within an Ecological Approach, interventions are:



- Developmentally relevant.
- Model based.
- Target family and peer interactions.
- Embedded in service settings.
- Coordinated across settings.

Overview Model Guiding the Family-Centered Intervention



Family Management Skills

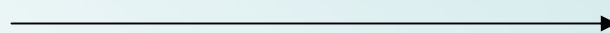


- Relationship-building
- Positive reinforcement
- **Monitoring**
- Limit-setting
- Problem-solving and communication

Service Systems Affecting Mental Health of Children and Adolescents

Developmental Stage

Early Childhood



W.I.C, Head Start,
Preschool settings

Childhood



Public Schools

Early Adolescence

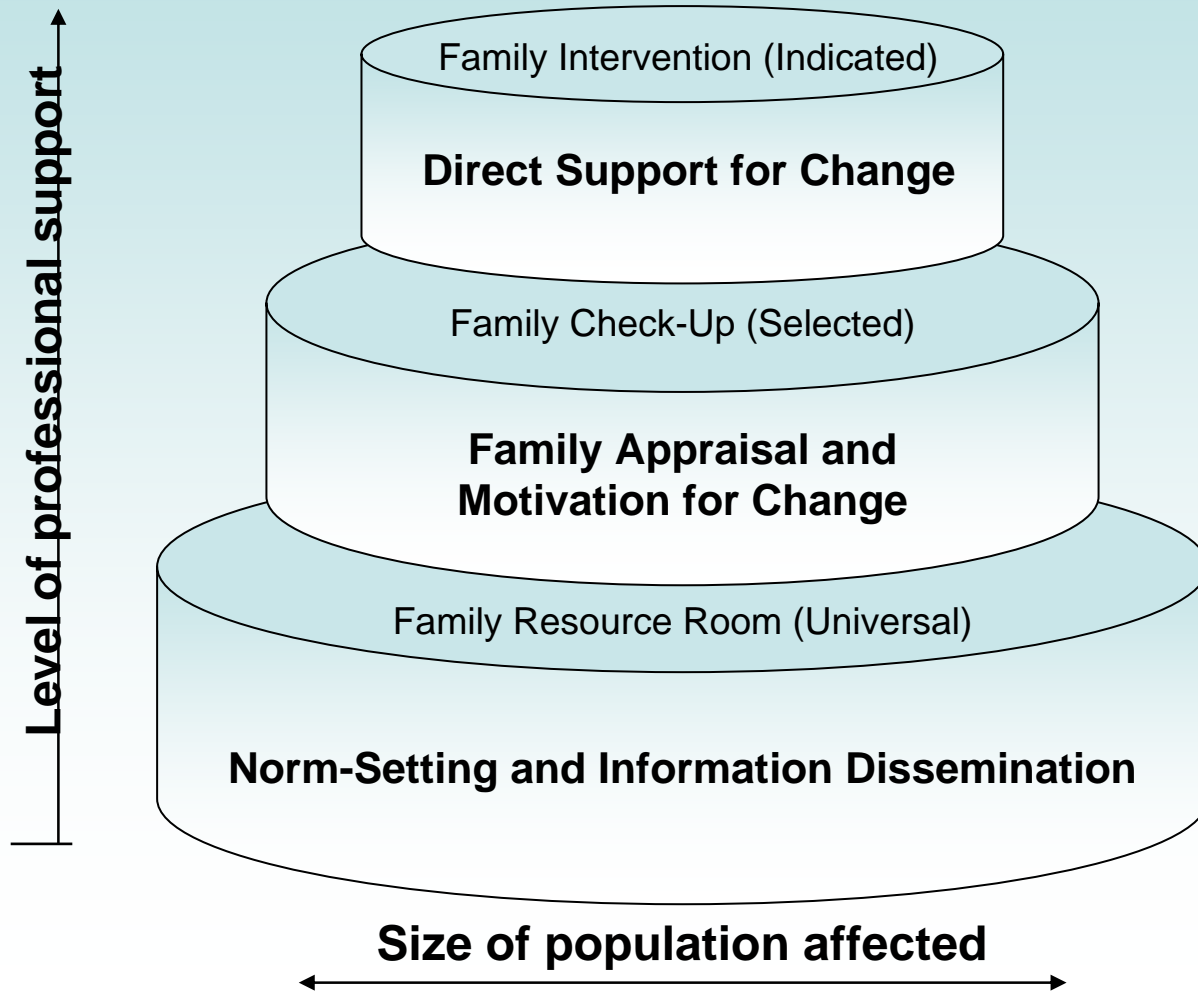


Adolescence



Community Programs:
Treatment and
Rehabilitation

A Multilevel Model for Parenting Interventions Within a School Ecology



Family Resource Center Services



- ❖ Parent-focused school orientation (self-check, books, and videos)
- ❖ Media on effective parenting and norms
- ❖ Classroom-based parent–child exercises that support family management practices
- ❖ Communication of specific information to parents about attendance, behavior, and completion of assignments
- ❖ Screening and assessment

Overview of the Family Check-Up: 3 - 4 Sessions



- Individual initial interview (intake)
- Assessment session
- Feedback with caregiver
- Feedback with adolescent (optional)

Initial Interview



- ▪ Complete intake questionnaire
- ▪ Unstructured interview with family
- ▪ Identify goals and concerns
- ▪ Identify stage of change
- ▪ Collaborate on next step

Case Conceptualization: Principles for Tailoring Feedback.



- ▪ Parenting is central
- ▪ Harm reduction
- ▪ Cross-setting coordination
- ▪ Support motivation

Family Profile

Profile for: _____

Area of Interest: _____

Child and Family Adjustment Profile

Background Support

- Within Family Stress
- Life Stress
- Substance Use
- Marriage
- Depression



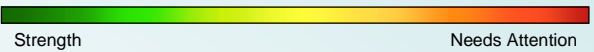
Family Management and Relationships

- Supervision
- Encouragement
- Limit Setting
- Drug Expectations
- Problem Solving
- Relationship Quality



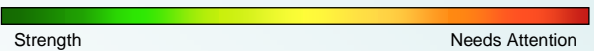
Peer Behavior

- Involved in School
- Acceptance
- Drug Use
- Problem Behavior



Youth Adjustment

- Problem Behaviors
- Emotional Adjustment
- Coping Skills



Phases of the Feedback Session



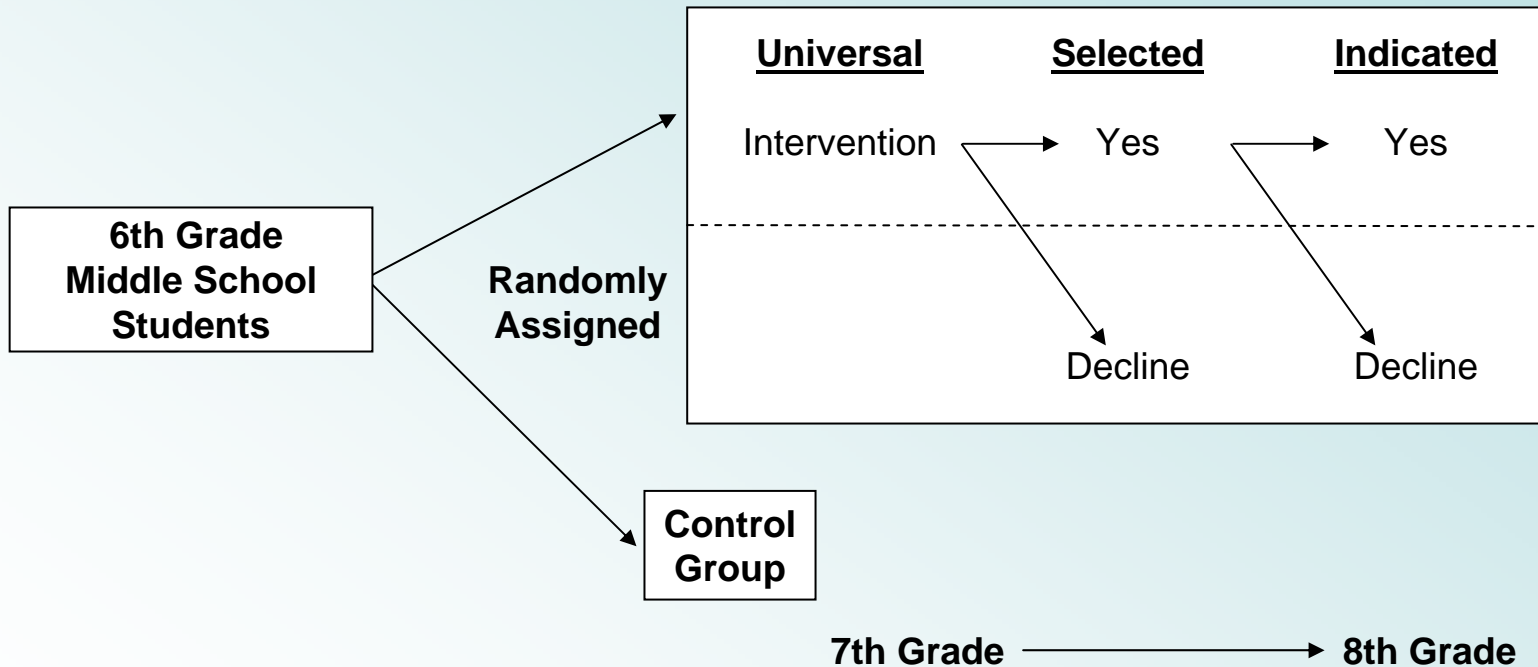
- Client self-assessment
- Support and clarification
- Assessment feedback
- Exploration of MENU

Menu of Follow-up Interventions



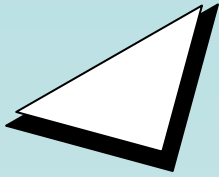
- Brochure
- Videotapes
- Brief family consultation
- Parenting groups
- Special-topic parent nights
- Books
- Home-school monitoring system
- Monthly family check-in
- Parent networking
- Community resources
- Referral

Multilevel Prevention Design for Project Alliance

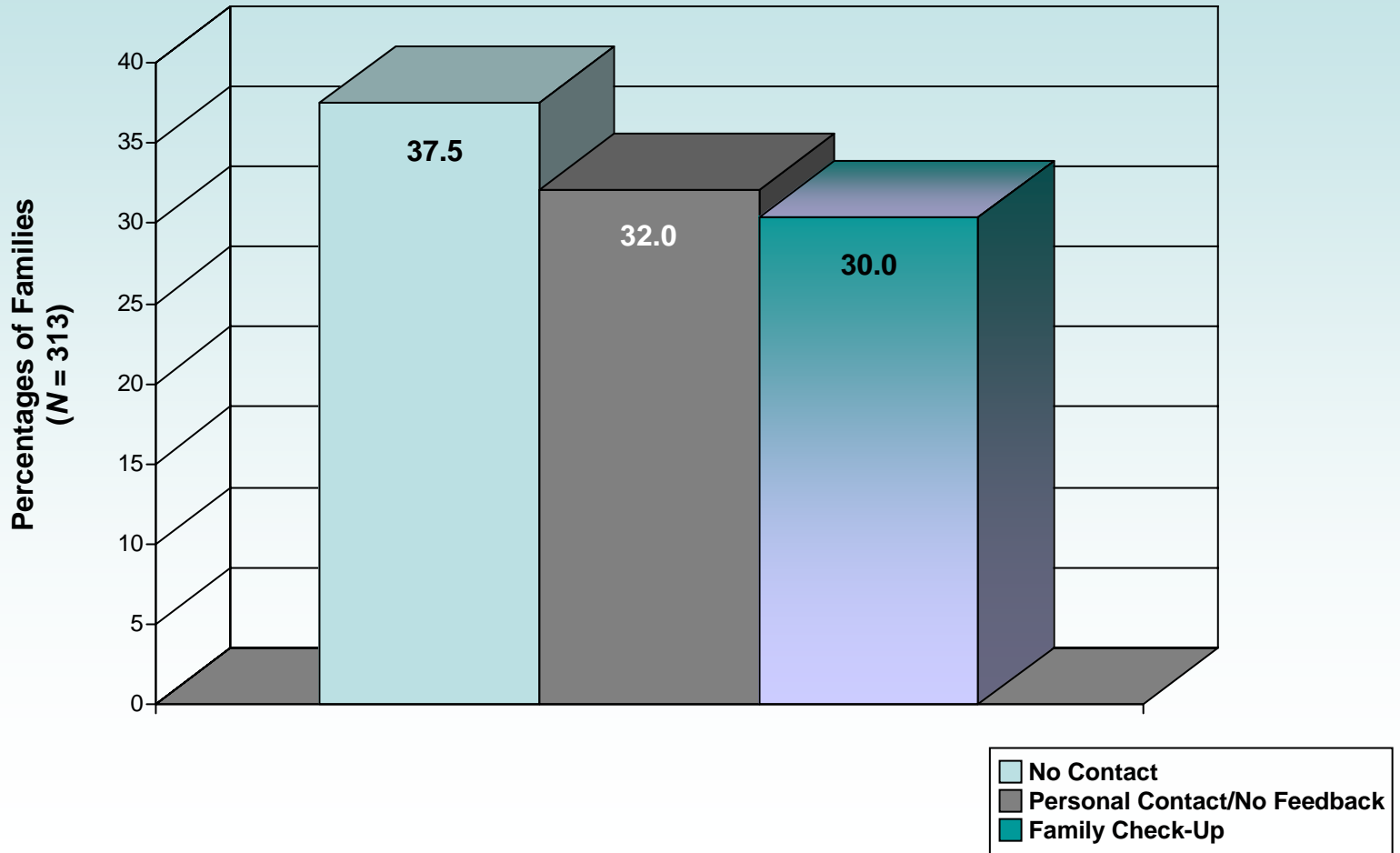


Demographics for Project Alliance Cohort 1 and 2 (N = 994)

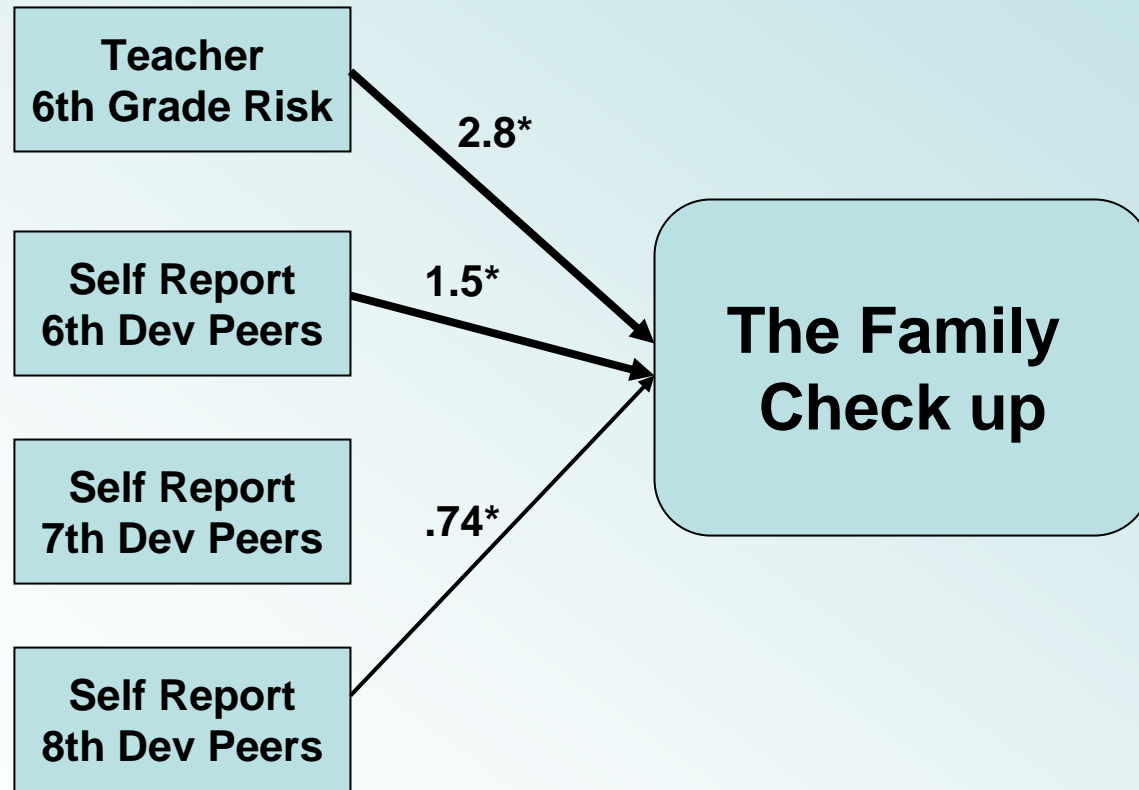
<u>Intervention Condition</u>		<u>Experimental</u>		<u>Control</u>	
		50%		50%	
<u>Gender</u>		Male		Female	
		52.7%		47.3%	
<u>Ethnicity</u>	European American	African American	Hispanic	Asian	Native American
(primary identification)	42.2%	36.5%	6.8%	5.2%	2.1%

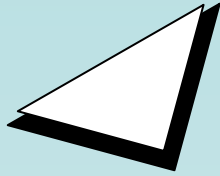


Percentage of the intervention group having contact with a parent consultant.



Predicting Engagement in the Family Checkup





Parent consultant contact by level of risk within the intervention group.

	<u>Low</u>	<u>Moderate</u>	<u>High</u>
Direct Contact with Parent Consultant	50.5%	68.8%	69.7%
Average Minutes of Contact	78.6 (0 – 720)	286.2 (0 – 2120)	385.9 (0 – 2750)

Substance use data

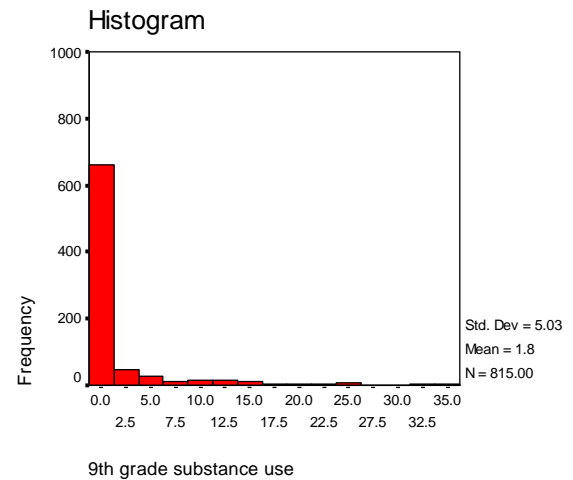
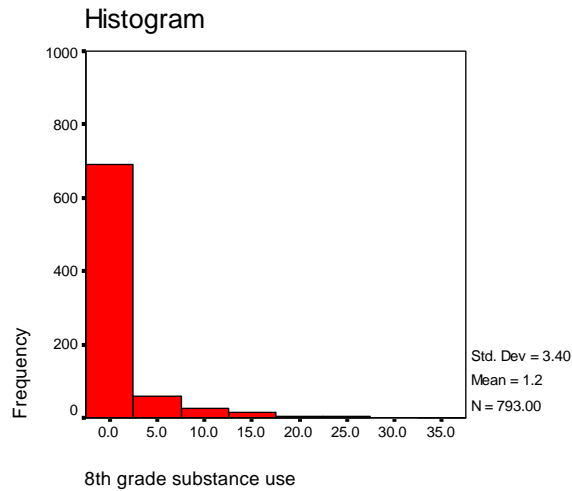
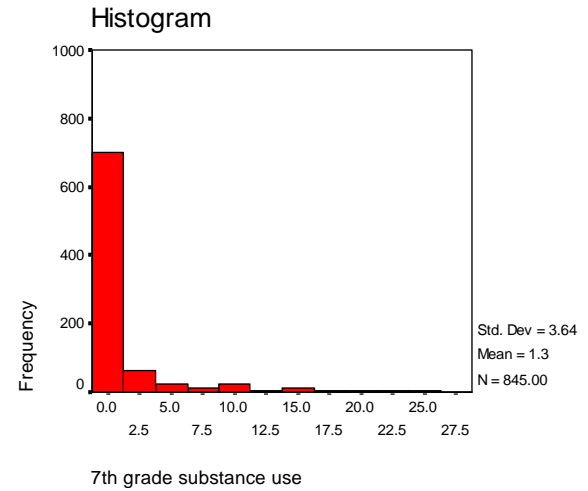
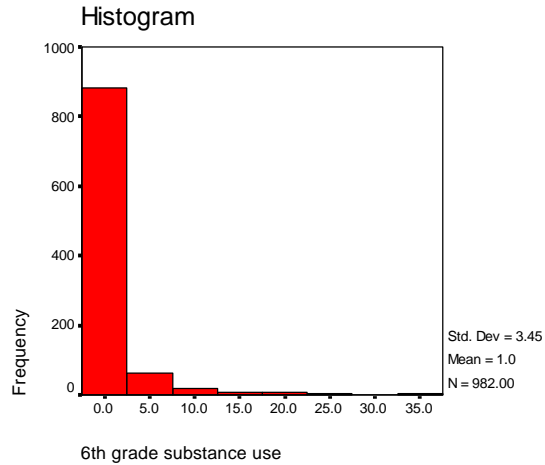
- Two self-report items each year (6th – 9th grade):
 - (1) Number of cigarettes in last month
 - (2) Number of drinks of alcohol in the past month
- Across the assessment waves, responses to these two items were significantly correlated (r from .41 to .55, $p < .05$).
- Additional items assessed variety of other substances, including marijuana and stimulants, but few children endorsed use

Descriptive statistics for substance use by year

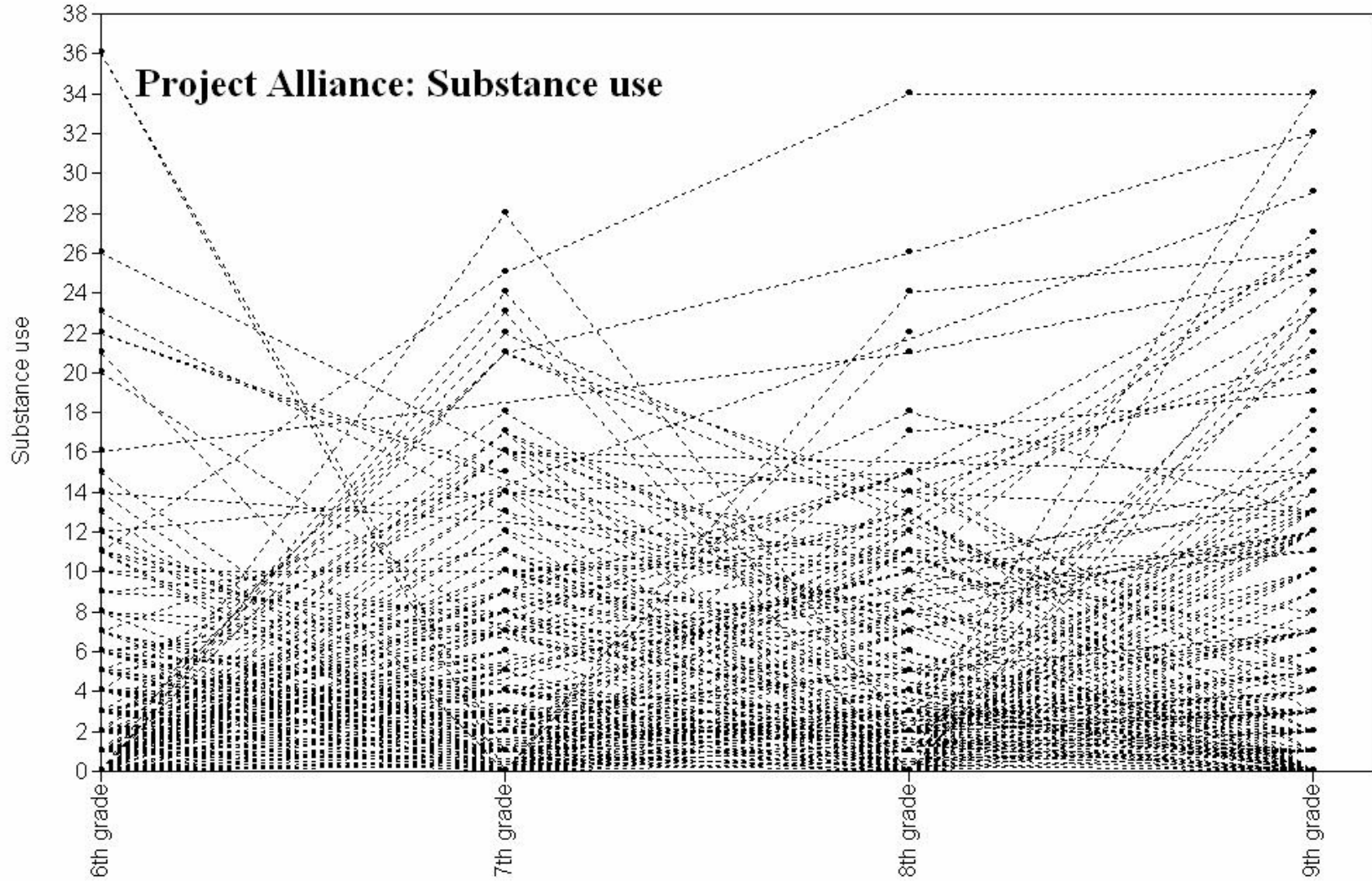
- Slight increase in mean level of use over time
- However, given extremely skewed distribution, examination of mean-level of use is biased downward.

Grade	Mean	SD
6 th	1.05	3.45
7 th	1.30	3.64
8 th	1.22	3.40
9 th	1.83	5.03

Substance use distributions by grade



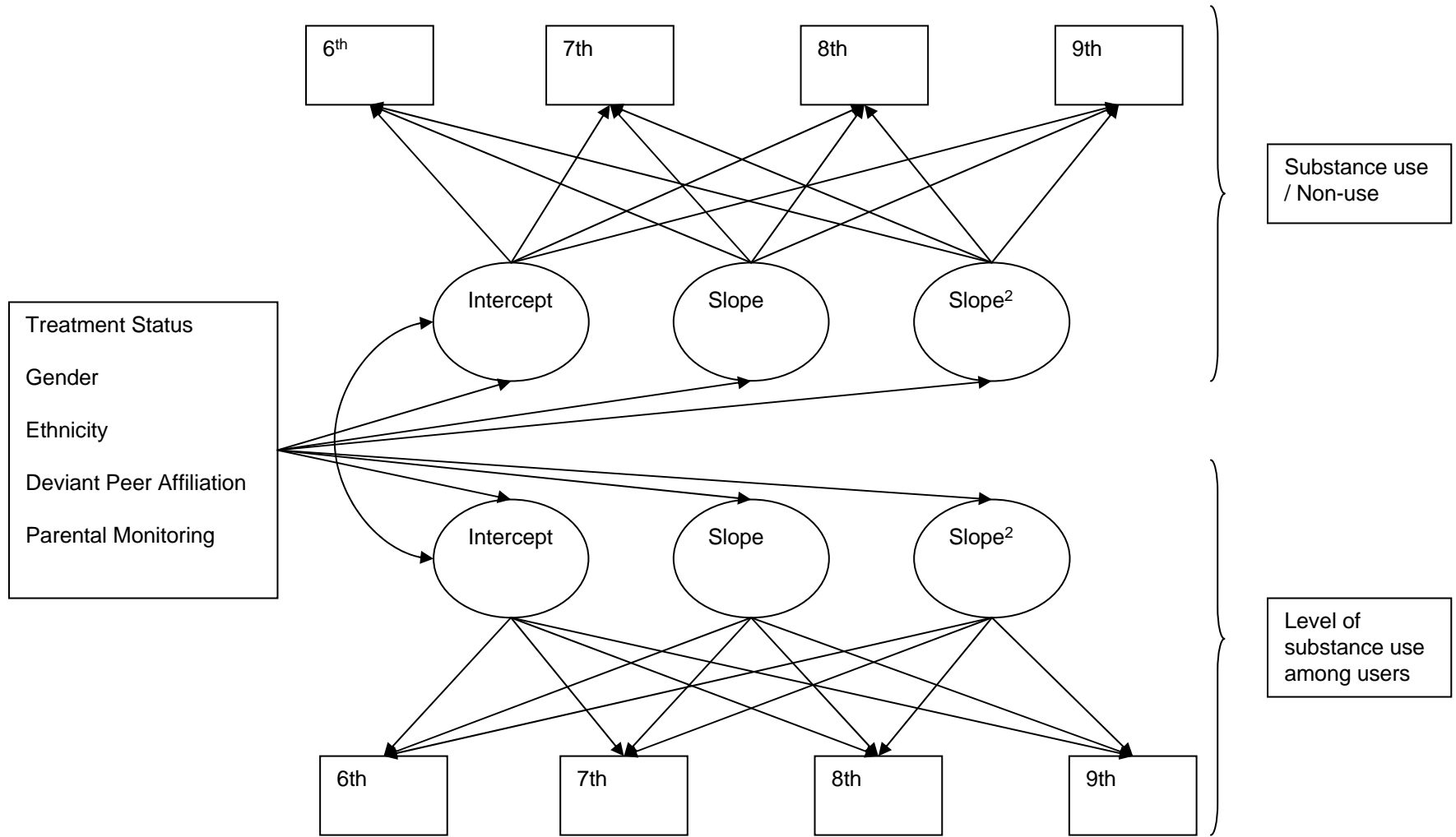
Observed trajectories



Two approaches to examining impact of treatment on substance use development

- 1. Zero-inflated Poisson Growth model
 - Examines predictors of:
 - A. use/non-use over time
 - B. growth in the level of use over time among users.
 - BUT: Does not provide means to examine possible heterogeneity in developmental patterns of substance use.
- 2. Latent Growth Mixture Model
 - Examines whether there are distinct patterns of substance use over time, that are predicted by different constellations of risk/protective factors.

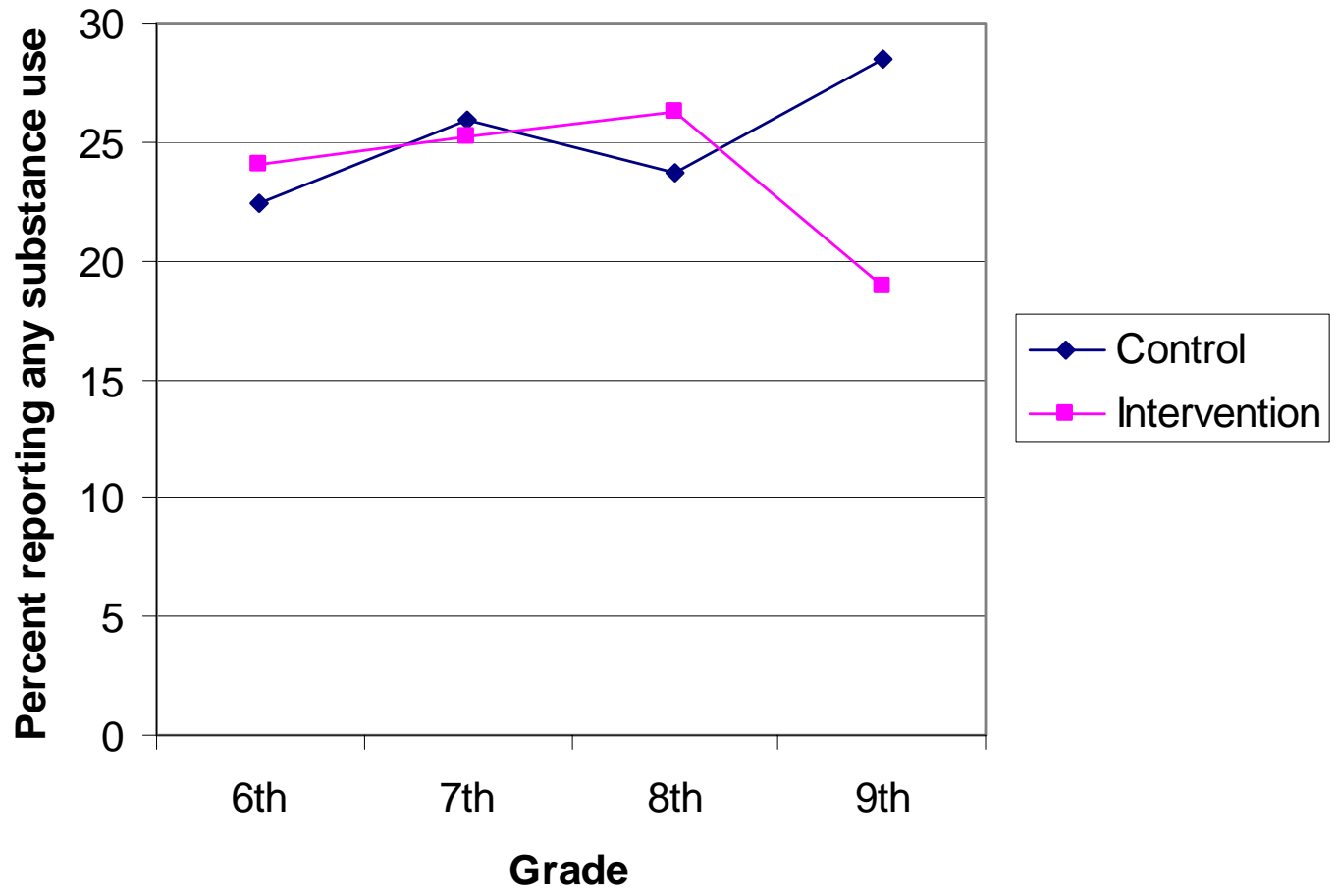
I. Zero-inflated Poisson growth model



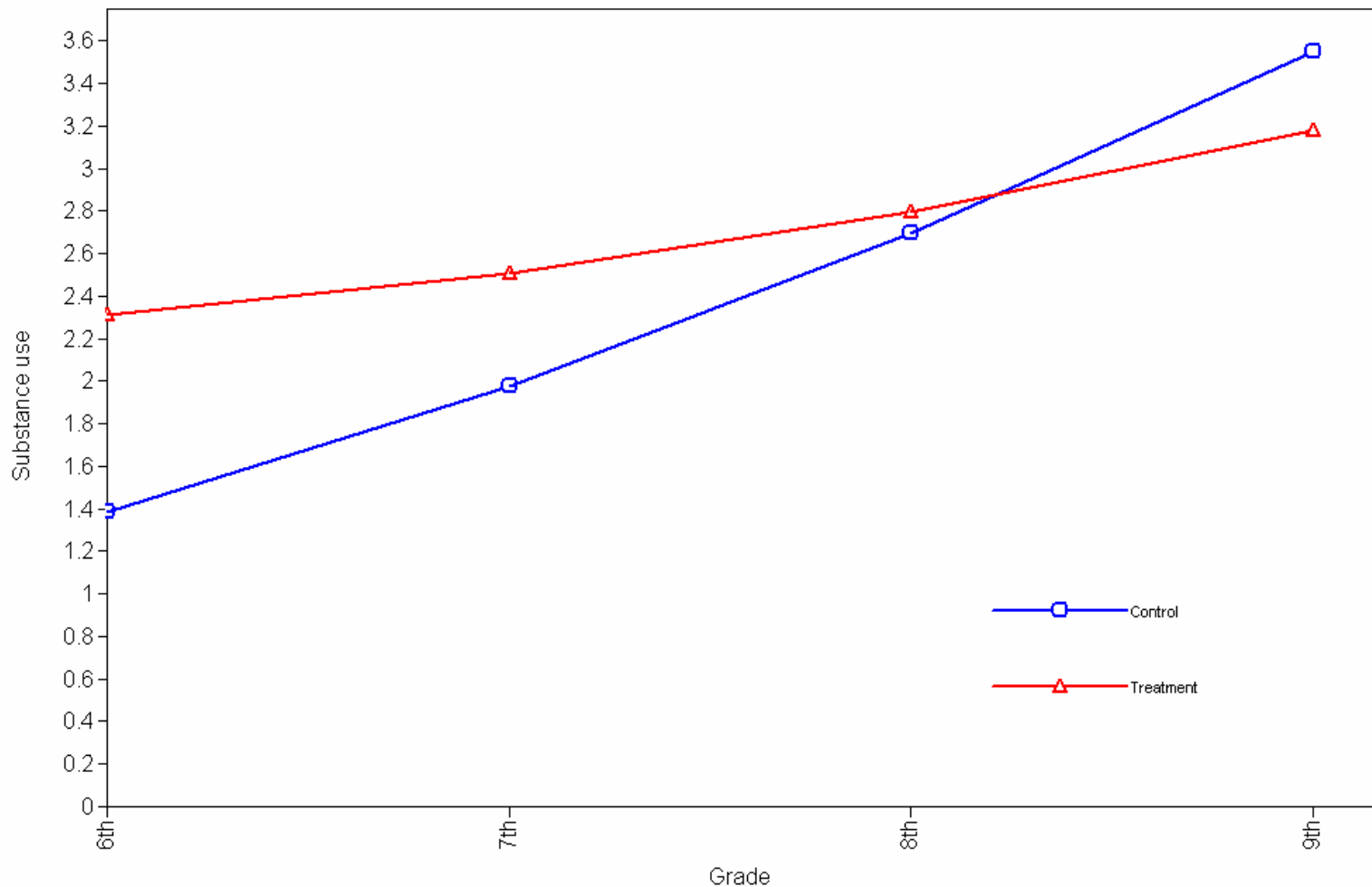
ZIP growth model results

	Use/Non-use				Level of Use		
	Intercept	Slope	Slope ²		Intercept	Slope	Slope ²
Growth Parameters	0	.25	-.08		-.12	.81 *	-.14
Treatment	.36	-1.22 *	.44 *		.69 *	-.78 *	.20 *
Gender	-.19	.09	-.09		-.15	.33*	-.07 *
Ethnicity	-.09	.69	-.15		.10	-.15	-.04
Deviant Peers	-.76 *	.03	.05		.23 *	-.02	-.01
Parental Monitoring	.51 *	-.18 *	.03		-.37 *	.17 *	-.07

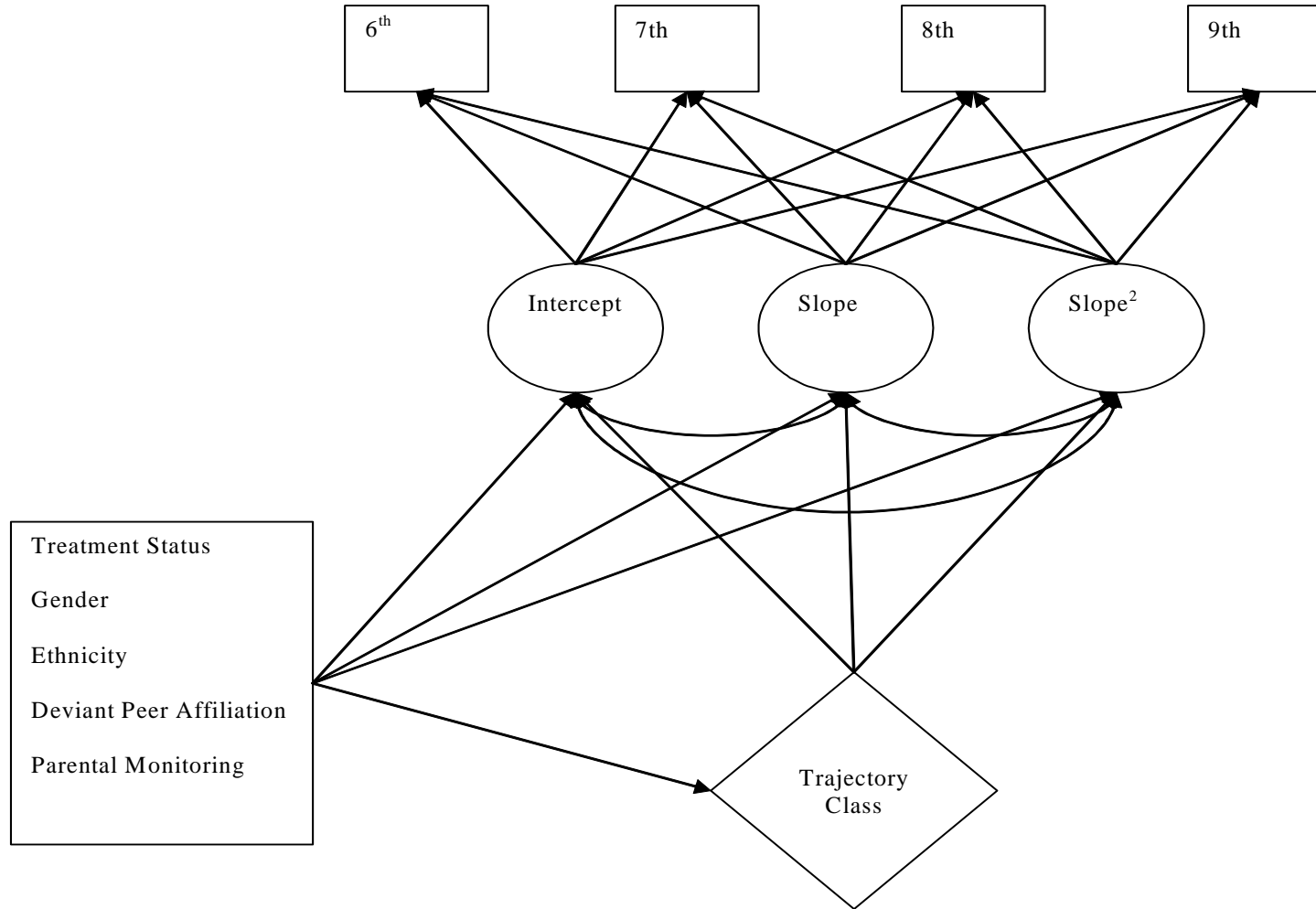
Intervention effect on substance use/non-use by grade



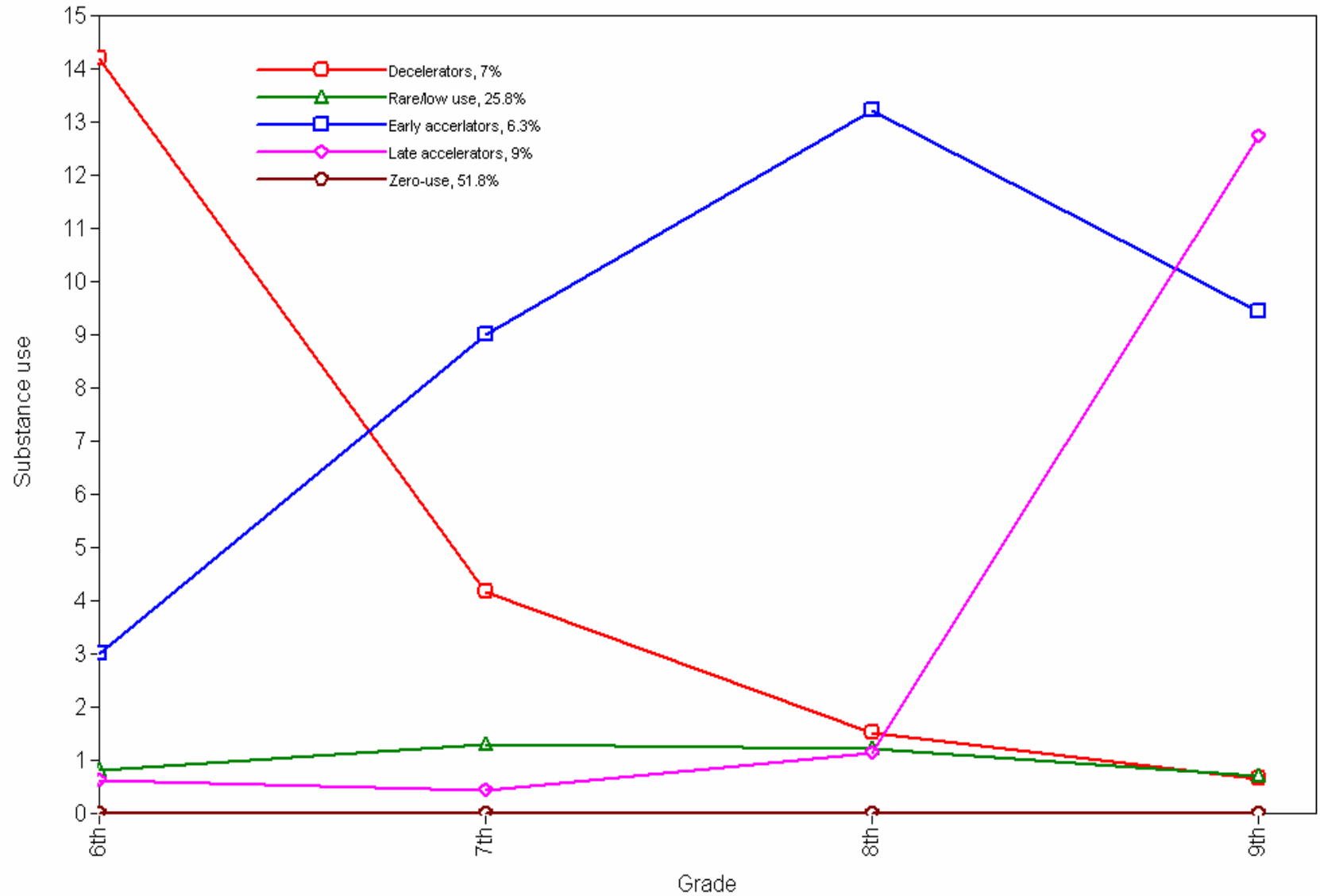
Intervention effect on level of substance use among youth who have initiated use.



II. Latent growth mixture model



5-group mixture model results



Predictors of class membership

(Note: logistic regression, comparing odds of being in class “x” vs. zero-use class)

	Decelerators	Rare Use	Early Accelerators	Late Accelerators
Gender	.09	.07 *	-.01	.07
Treatment	-2.04 *	-.13	.49	.08
Ethnicity	-1.11 *	.18	.16	-.49
Deviant Peers	.92 *	.64 *	.84 *	.46 *
Parental Monitoring	-.28	-.07	-.28	-.52 *

Summary of substantive results from mixture model

- Intervention had biggest impact on subset of kids at high early risk for substance use.
 - These kids were primarily African American, and were hanging out with deviant peers in 6th grade.
 - 85% of kids in the group showing dramatic decreases in substance use were in the intervention condition.
- However, there are clearly kids who still need to be reached
 - Late-accelerators: predicted by deviant peer affiliation and poor parental monitoring, culminating in heightened risk following the transition to high school
 - Suggests important time-frame for additional intervention
 - Early accelerators: follow-up analyses show this group is marked by elevations on host of risk factors, including high family conflict, antisocial behavior, deviant peers, and poor early parental monitoring.
 - This group may require more intensive forms of intervention.

Concluding Comments

- Family-centered approach show positive effects on reducing substance use initiation, and growth in substance use among those who have initiated.
- Ecological approach seems cost-effective when delivered in a service delivery setting.
- Biggest treatment effect on youth at heightened early risk.

Future Directions

- Future research needed on timing of additional interventions (i.e. high school transition), and reaching early accelerator group.
- Study the process of change to isolate the training needs for successful implementation.
- Developing a similar strategy for the WIC service settings.
- Could adapt to other service settings as the juvenile justice centers.

For More Information: Child & Family Center

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