

Assessing the Impact of Communities that Care



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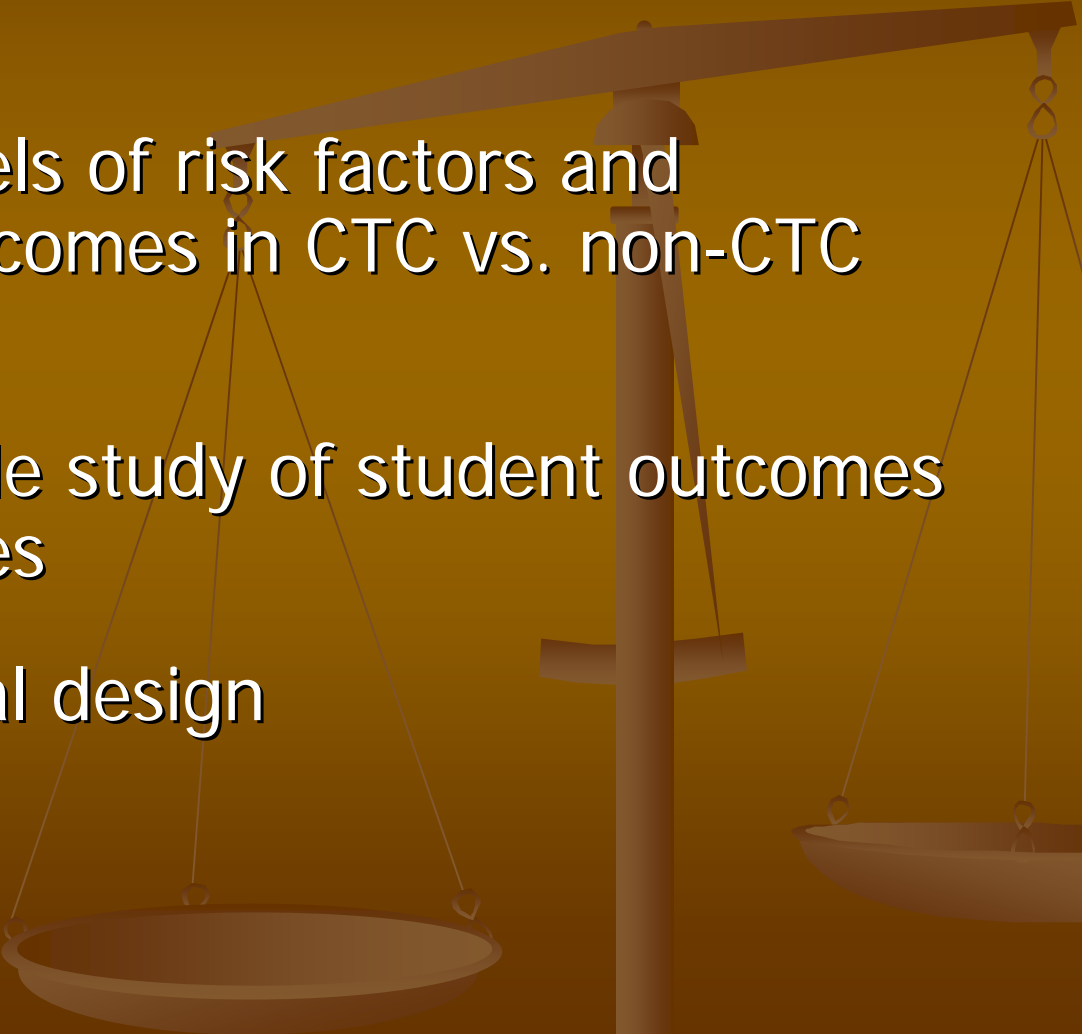
This research is funded by the
Pennsylvania Commission on Crime and
Delinquency

The CTC Initiative in PA

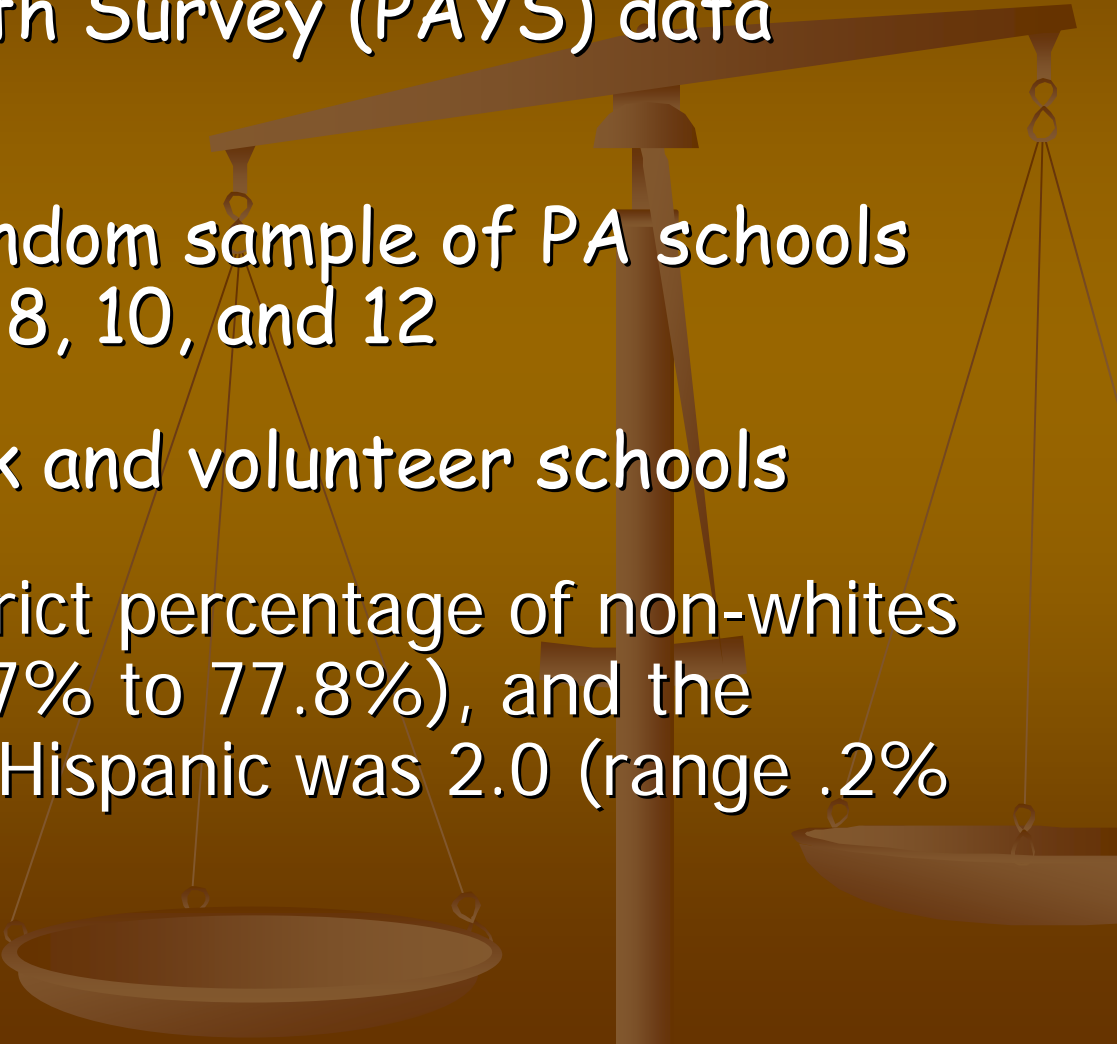


- Began in 1995 with 8 sites
- Has grown to over 120 communities through sixteen funding cycles and three governors
- Has undergone continuous development and improvement
- PA has provided initial 1-year funding for planning, 3-year program implementation funding, and additional "sustainability" funding for program continuation

Communities That Care (CTC) Outcomes Study

- Compared the levels of risk factors and substance use outcomes in CTC vs. non-CTC communities in PA
 - The first large-scale study of student outcomes in CTC communities
 - Quasi-experimental design
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CTC Outcomes Study

- Utilized PA Youth Survey (PAYS) data from 2003.
 - Stratified random sample of PA schools for grades 6, 8, 10, and 12
 - Plus piggyback and volunteer schools
 - The average district percentage of non-whites was 6.1 (range .7% to 77.8%), and the average percent Hispanic was 2.0 (range .2% to 22.1%).
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**Table 1. PAYS Sample:
Number of School Districts and Students in All Grades for 2001 and 2003.**

Year		Total PAYS Sample	Non-CTC Sample	CTC Sample	CTC subsample with strong Evidence-Based Programs*	CTC subsample with Expected Program Impact**
2001	Districts	79	41	38	30	-
	Students	38,107	14,588	23,519	16,730	-
2003	Districts	147	52	95	64	47
	Students	98,436	30,974	67,462	43,923	26,028
Districts Participating at both 2001 and 2003	Districts	42	13	29	21	-

*Includes only CTC-affiliated districts where CTC has administered evidence-based prevention programs (see report text).

**Includes only CTC-affiliated districts communities the timing of program implementation and data collection allows an expectation of positive effects from administered programs.

CTC Site Age (months) at time of PAYS Administration

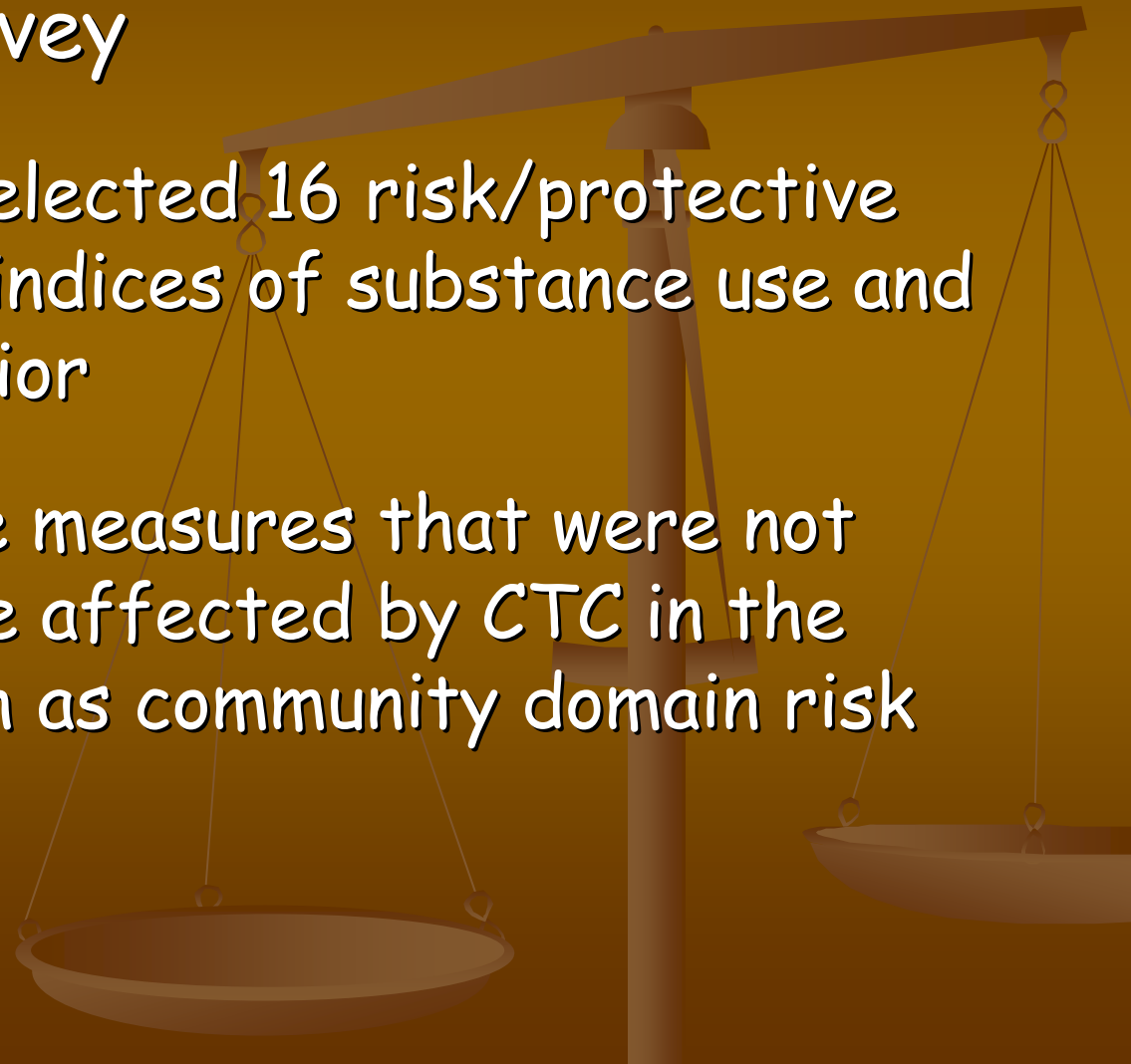


PAYS	< 1 yr	1 to 2 yrs	2 to 3 yrs	3 to 4 yrs	> 4 yrs
2001	25	8	14	13	0
2003	0	17	28	23	34

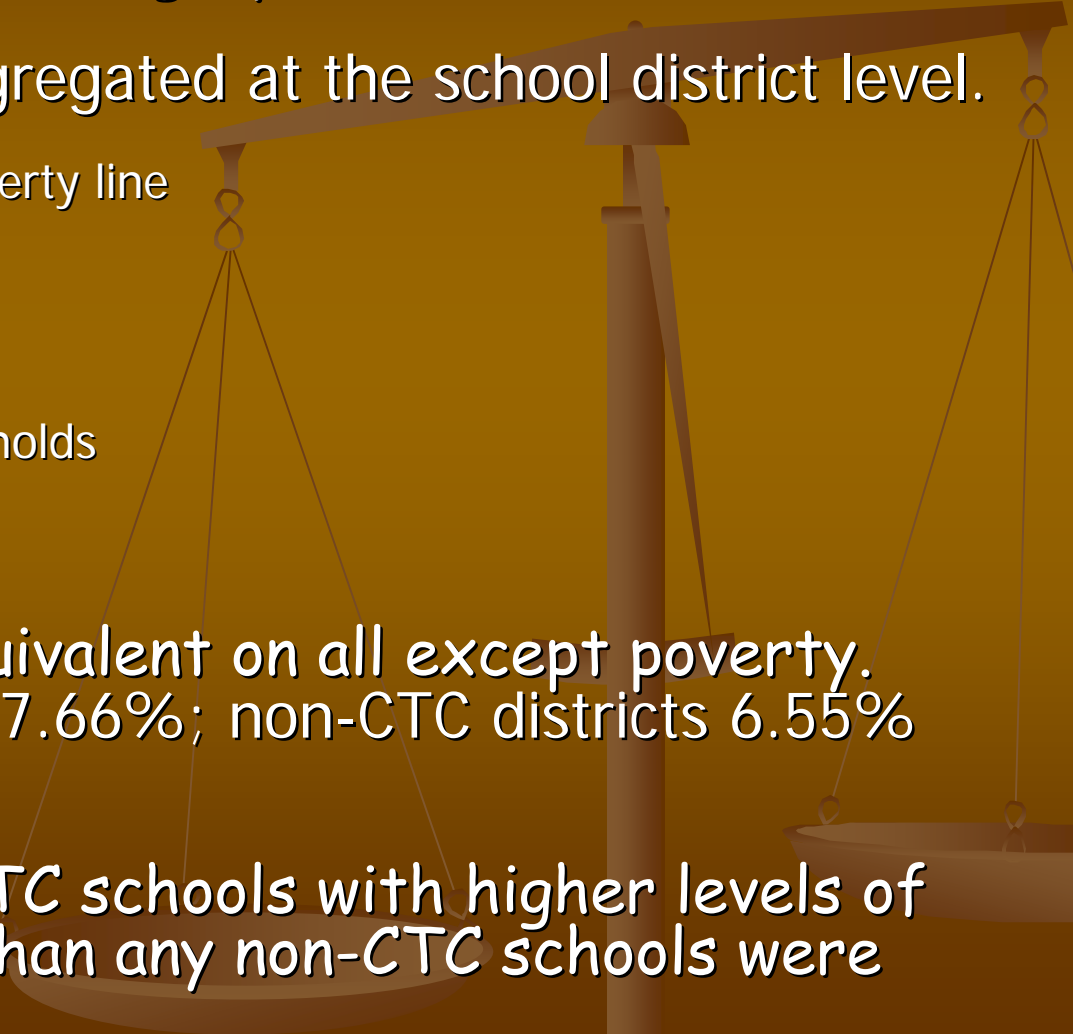
Measure

➤ CTC Youth Survey

- For analysis, selected 16 risk/protective factors and 6 indices of substance use and problem behavior
- Did not include measures that were not expected to be affected by CTC in the short run, such as community domain risk factors



Preliminary Analyses

- Propensity scores used to assess and create comparable samples of CTC and non-CTC schools based on community demographics.
 - 2000 Census data aggregated at the school district level.
 - % households below poverty line
 - % households non-white
 - population size
 - % female-headed households
 - Population density
 - CTC and non-CTC equivalent on all except poverty. CTC districts average 7.66%; non-CTC districts 6.55% (F=4.82, p=.029).
 - A small number of CTC schools with higher levels of community poverty than any non-CTC schools were eliminated.
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Analyses



- Community-level poverty employed as a covariate.
- 2-level models conducted with SAS Proc Mixed, with students clustered within school. (Non-normal distributions tested with Proc Glimmix; very similar results)
- Separate models for each of the 4 grades.

CTC Sites versus non-CTC sites – 2003 PAYS

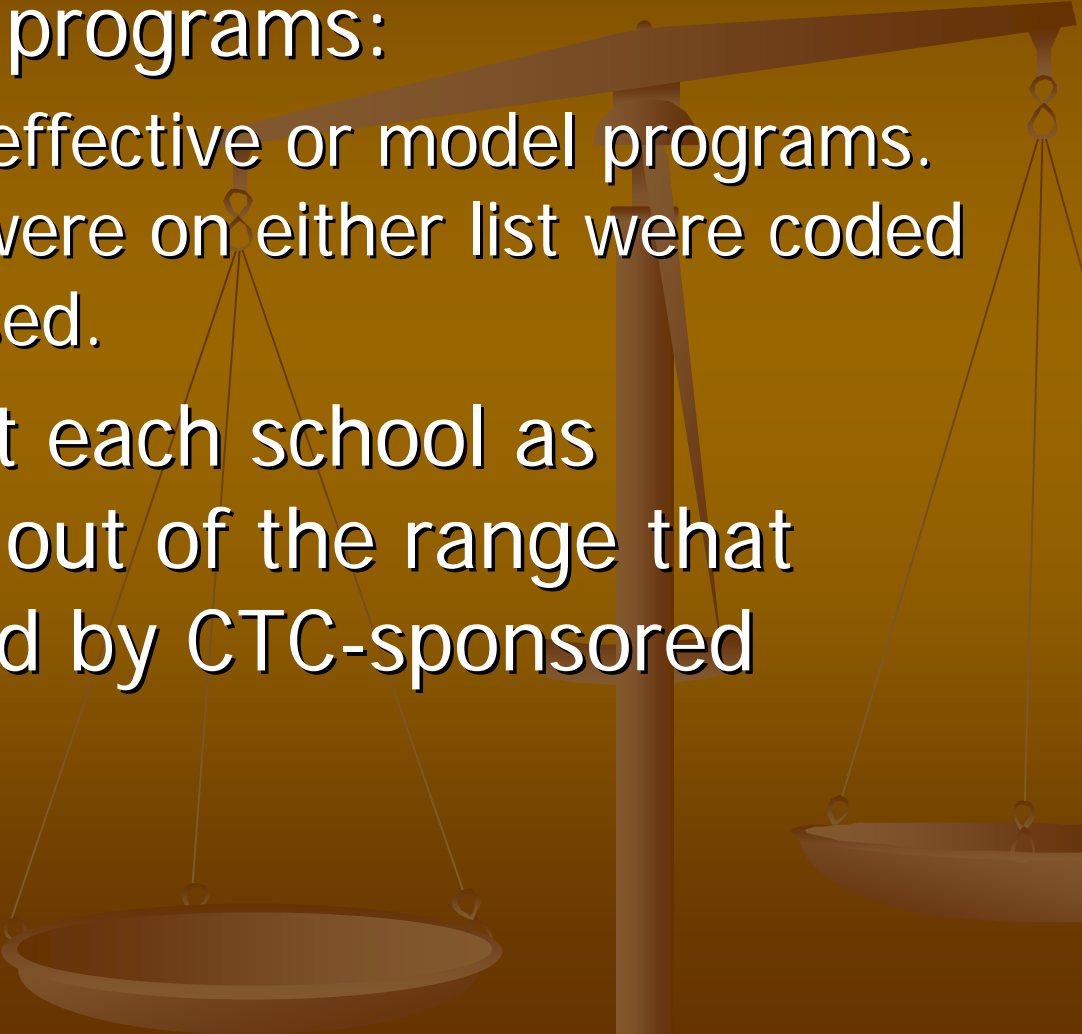
Risk Factors	6	8	10	12
Family Supervision	+	+	+	+
Family Discipline	+	+	+	+
Family History of Antisocial Behavior	+	+	+	+
Parental Attitudes Favorable to ATOD Use	+	+	-	+
Academic Failure	+	-	+	+
Low School Commitment	+	+	-	-
Rebelliousness	+	+	-	-
Friends' Delinquent Behavior	+	+	+	+
Friends' ATOD Use	+	+	+	+
Peer Rewards for Antisocial Behavior	+	+	+	+
Favorable Attitudes Toward Antisocial Behavior	+	+	-	+
Favorable Attitudes Toward ATOD Use	+	+	+	+
Low Perceived Risk of ATOD Use	+	+	+	+
Early Initiation of Problem Behavior	+	+	+	+
Sensation Seeking	+	+	-	-



Favors CTC sites at $p < .05$ (sig.)

Favors CTC sites at $p < .10$ (trend)

Sub-sample of CTC Grade Cohorts

- Evidence-based programs:
 - SAMHSA list of effective or model programs. Programs that were on either list were coded as evidence-based.
 - Grade cohorts at each school as potentially in or out of the range that could be affected by CTC-sponsored programs.
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CTC Sites With Age Appropriate Evidence-based Programs versus non-CTC sites

Risk Factors	6	8	10	12
Family Supervision	+	+	-	+
Family Discipline	+	+	+	+
Family History of Antisocial Behavior	+	+	+	+
Parental Attitudes Favorable to ATOD Use	+	+	-	-
Academic Failure	-	-	+	+
Low School Commitment	+	+	+	+
Rebelliousness	+	+	-	+
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Early Initiation of Problem Behavior	+	+	+	+
Sensation Seeking	+	+	-	-



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Favors CTC sites at $p < .10$ (trend)

CTC Sites versus non-CTC sites – 2003 PAYS

ATOD and Delinquency Outcomes	6	8	10	12
Past 30-day Alcohol Use	+	+	+	+
Past 30-day Cigarette Use	+	+	+	-
Past 2-week prevalence of Binge Drinking	+	+	+	+
Drunk or high at school in past year	+	-	+	+
Delinquency	+	+	+	+
Drug Use	+	+	+	+



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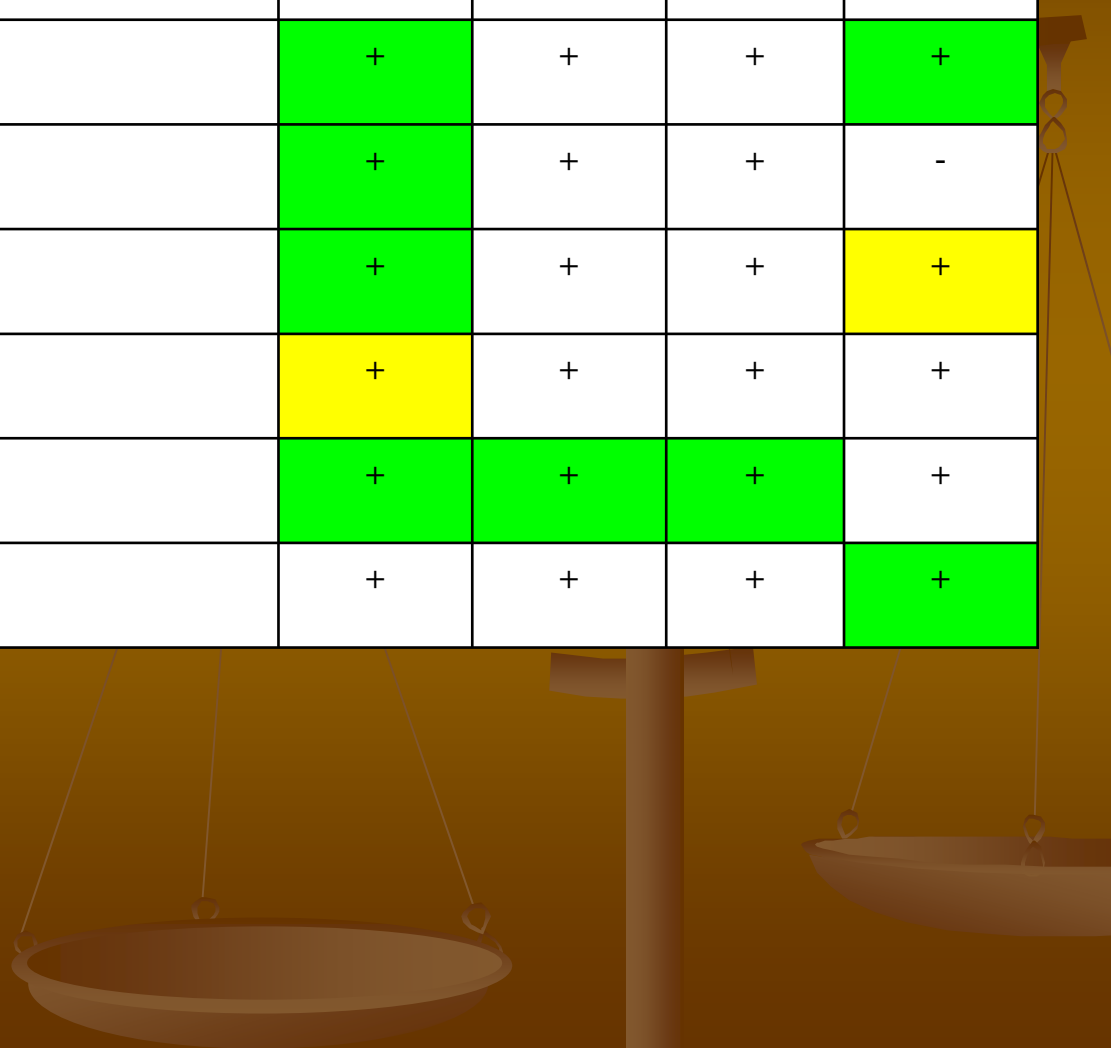
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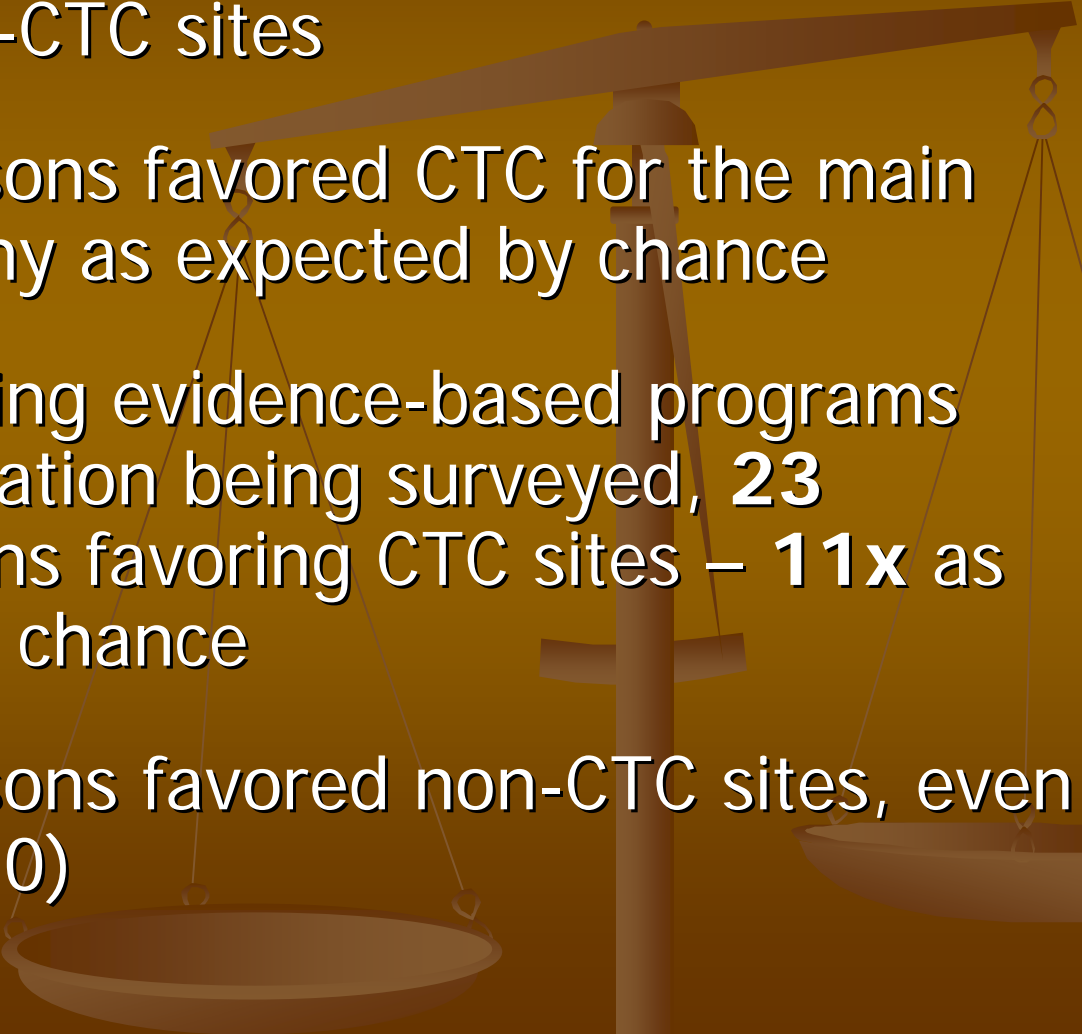


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Interpreting the Findings

- By chance alone we would expect **4** comparisons to be statistically significant ($p < .05$), with 2 favoring CTC sites and 2 favor non-CTC sites
 - Instead, **15** comparisons favored CTC for the main analyses – **7x** as many as expected by chance
 - For only CTC sites using evidence-based programs targeted at the population being surveyed, **23** significant comparisons favoring CTC sites – **11x** as many as expected by chance
 - None of the comparisons favored non-CTC sites, even at a trend level ($p < .10$)
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Effect Size

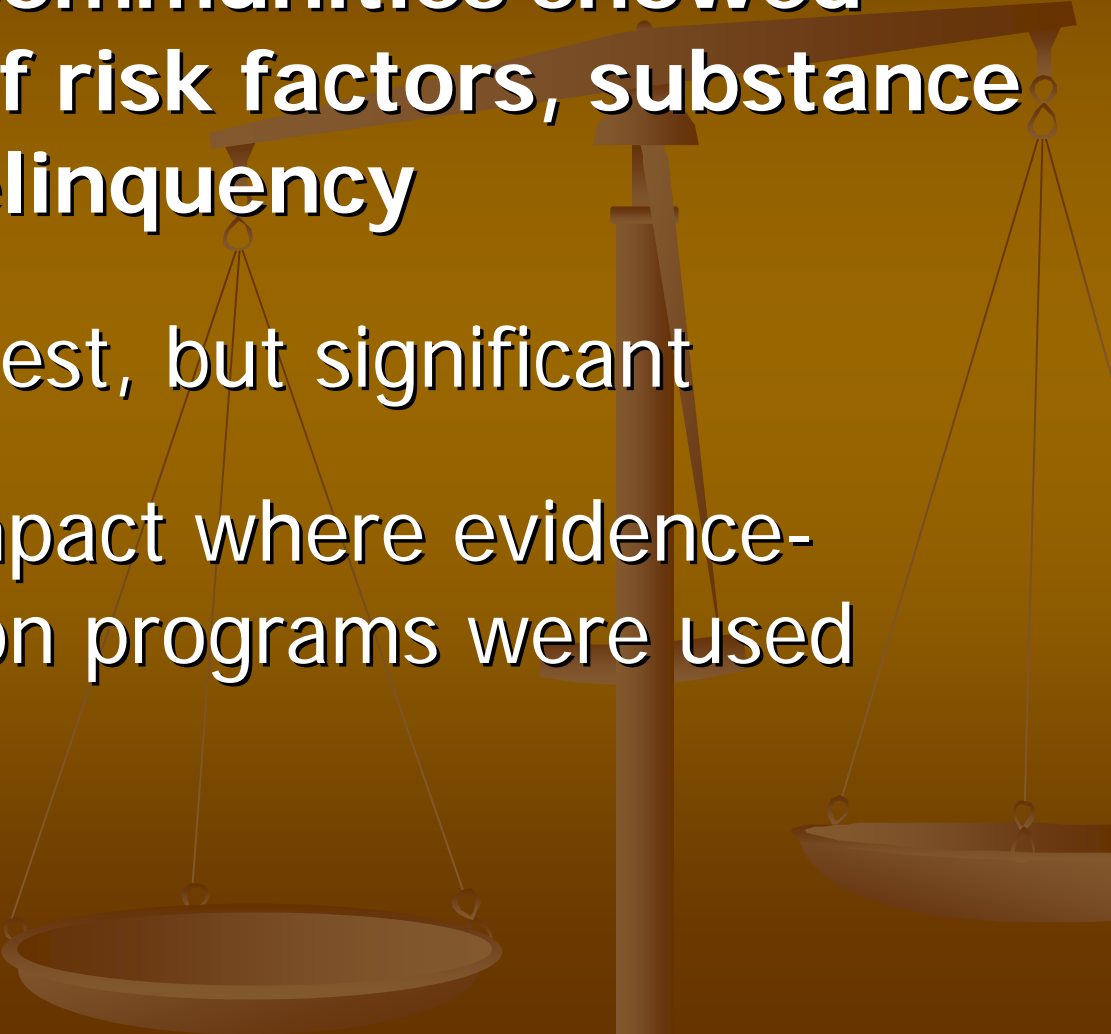
- Effect sizes computed as odds ratios with multinomial models for significant differences between CTC and non-CTC sites in the 2003 expected impact subsample.
- Responses were recoded to facilitate analyses, yielding between 7 and 16 response levels.
- The resulting odds ratio from this ordinal logistic model reflects the likelihood of a student in a non-CTC district reporting a higher level of risk or substance use than a student in a CTC district.
- Odds ratios for the models analyzed ranged from 1.12 to 1.36, with an average of 1.23

A Conservative Estimate

Our design likely underestimates the full impact of CTC for several reasons:

- Only measures effects on 6th – 12th grade students
- Measures all risk factors, rather than looking at specific risk factors targeted by a given community
- Measures risk factors and outcomes at a population (grade cohort) level, though programs often targeted only a very small subset
- Measures only short-term impact. Prevention effects may be strongest when measured over a longer period of time
- The comparison group (non-CTC) is not a “no intervention” control group. There are still prevention activities going on in the non-CTC communities

Summary of Findings

- Overall, CTC communities showed lower levels of risk factors, substance abuse, and delinquency
 - Effects are modest, but significant
 - Even greater impact where evidence-based prevention programs were used
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Limitations

- PAYS is a snapshot
- Anonymous data collection; cannot track change at the individual level
- Under sampling of large metropolitan regions

