

INTRODUCTION

- Impoverished children are consistently shown to start school less prepared than their more affluent peers (Ferguson, Bovaird, & Mueller, 2007) and are 5x more likely to drop out (NCES, 2013).
- Impoverished children facing greater risk factors evidence a multitude of negative outcomes (Robbins, Stagman, & Smith, 2012). However, sustainable interventions offer hope.
- We examined the impact of quantity and type of risk factors on school outcomes for those who received EC intervention.

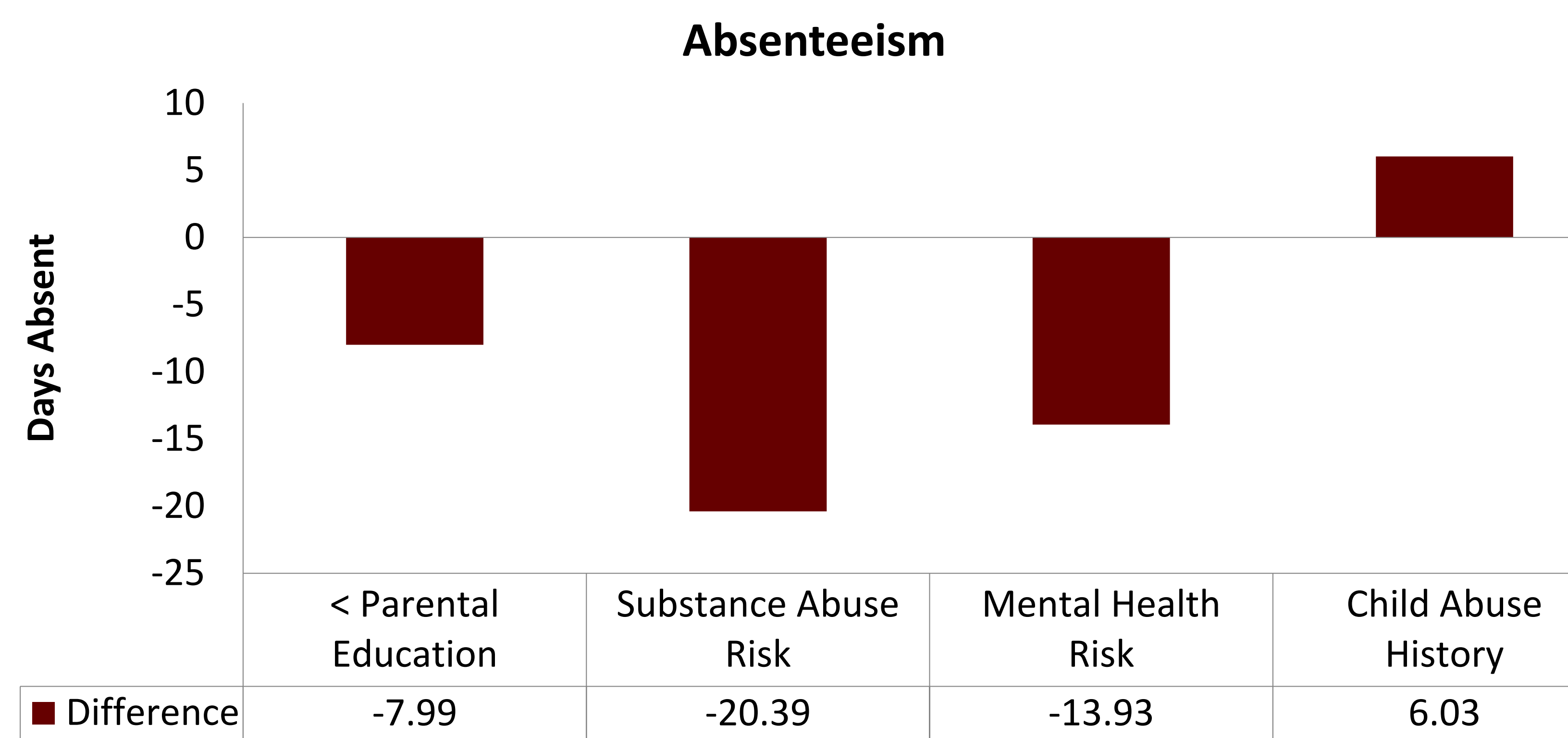
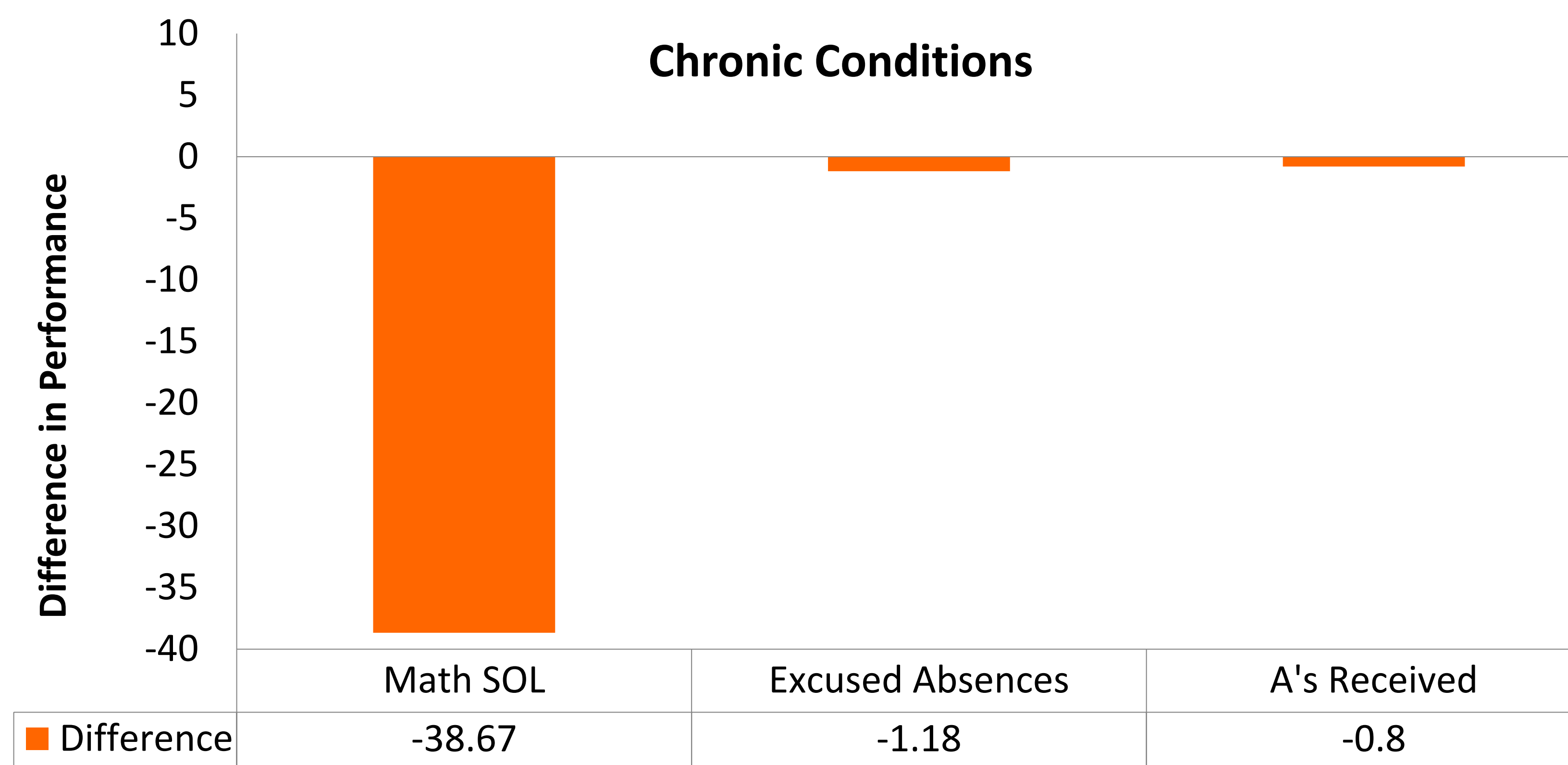
METHOD

- 1,298 school-aged children, previously enrolled in a healthcare coordination intervention program for impoverished families (<185-200% of the federal guidelines), were included in this study.
- Children were predominantly African American (54.9%), Caucasian (30.8%), and Hispanic (10.3%). 48.8% were female.
- The impact of eight risk factors on K-3 school outcomes in the AY12-13 were examined for these children.

RISK FACTOR	PERCENTAGE
Child asthma	14%
Child abuse experience	14.1%
Child chronic condition	30.3%
Parental substance abuse	10.8%
Parental mental health risk	29.4%
Parental education status (<HS)	43%
Parental smoker	23.4%
Dual language home	15%
Homeless/Transient	18.3%
Non-parental guardian relationship	4%
Single parent household	64.1%
No medical home	2%
No dental home	40%
Accepted free/reduced lunch	82.2%
CPS Referral	6.7%
Poverty	100%
Non-White	69.2%
+1 risk factor	33.7%
+2 risk factor	19.6%
3-7 risk factors	20.9%

RESULTS

- Basic bivariate correlations indicated that quantity of risk factors was negatively related to Spring Kindergarten PALS indicators: beginning sounds ($r(139)=-.217$, $p=.010$), letter sounds ($r(139)=-.206$, $p=.015$), spelling ($r(139)=-.267$, $p=.001$), and total scores ($r(139)=-.169$, $p=.048$) and Fall 3rd grade PALS indicators: spelling ($r(147)=-.210$, $p=.011$), 2nd grade word list ($r(147)=-.234$, $p=.004$), and total scores ($r(147)=-.227$, $p=.004$).
- Quantity of risk factors was also negatively associated with A's received ($r(287)=-.125$, $p=.035$) and 3rd grade standardized test scores in reading ($r(294)=-.173$, $p=.003$) and math ($r(294)=-.165$, $p=.005$).
- Quantity of risk factors was also positively related to number of school transitions ($r=.070$, $p=.035$).
- ANCOVAs were used to further analyze the relationship between the presence/absence of specific risk factors while controlling for the quantity (given the number of relationships identified via correlations).
- Receiving more A's was seen for children in a dual language home versus a mono-lingual home ($diff=.64$).



DISCUSSION

- While the variance explained (eta-squared) in the study was relatively low, 1-5%, the practical significance should be considered as children in these specific sub-populations, on average, missed up to three weeks more school than their peers, received up to one less A, and scored 38.670 points lower on their math SOLs.
- Understanding that risk factor quantity is negatively related to multiple school outcomes is important as reducing the number of risks faced by children and their families should help children perform better. Dependent upon circumstances, some risks may be more easily reduced than others.
- Furthermore, understanding which risks contribute more heavily to school success is critical for targeting interventions where they will have the most impact.
- In many cases, the risk factors are specifically related to the parent/guardian so viewing the family holistically is vital.
- Interestingly, not all findings were negative and the role of the dual language home should be examined more closely. Previous work with this non-profit has indicated greater benefits for Hispanic families.
- Addressing the issues impoverished children and their families face will require collaboration from numerous stakeholders if they are to be effective and lasting.
- Understanding co-morbid issues will also help develop a stronger intervention.
- Recently, the nonprofit providing the wraparound intervention services began retaining children through their Kindergarten year to 1) teach parents how to be advocates for their children and navigate the school system and 2) to place children in an after-school program so continuity of care could be maintained and academic help could be ensured.

COLLABORATORS

