

# Association and Disparities of Food Security and Child Abuse: Analysis of the National Survey of Children's Health



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## INTRODUCTION

- At least 1 in 7 children experience child abuse or neglect in the US, with child abuse being deemed a public health crisis in 2018.<sup>1,2</sup>
- Given that 20% of children in food-insecure homes experience parental aggression compared to 7% in food-secure households, assessing the relationship between child abuse and food insecurity is critical.<sup>3</sup>
- Rates of child abuse and food insecurity also disproportionately affect children of different demographic groups, especially racial/ethnic minority groups.

## OBJECTIVES

- The primary objective was to assess the relationship between food insecurity and child abuse among children in the US.
- Our secondary objective was to assess the interaction effect of race/ethnicity and food insecurity on child abuse.

## METHODS

### DATA

- We extracted data from the National Survey of Children's Health (NSCH 2016-2021), a national survey conducted by the the Health Resources and Services Administration (HRSA) Maternal and Child Health Bureau (MCHB) that assesses child demographics, medical conditions, behaviors, and experiences.<sup>4</sup>

## STATISTICAL ANALYSIS

- Using survey weights provided by the NSCH, we determined population estimates and rates of children experiencing food insecurity and child abuse.
- We then constructed logistic regression models to assess associations, via odds ratios (OR), between food security groups and whether the child experienced child abuse and the interaction of food security and race on experienced abuse.

## RESULTS

- Among the survey sample (n=216,799), 7.4% of children were reported to have experienced child abuse, while 25.47% and 5.24% of children experienced marginal and low food insecurity, respectively, over the past year.
- Compared to those with high food security, children with marginal or low food security were more likely to experience child abuse (AORs: 2.30, CI: 2.10-2.53 and 5.19, CI: 4.48-6.02, respectively).
- Households with lower income had higher rates of marginal or low food security (Figure 1), as well as homes with Black, Indigenous, Multi-racial, and Hispanic children (Figure 2).
- Compared to White children with high food security, Indigenous and Multi-racial children were significantly more likely to experience child abuse as household food security decreased (Table 1).

Figure 1. Percent Food Insecurity by Percent of Federal Poverty Level

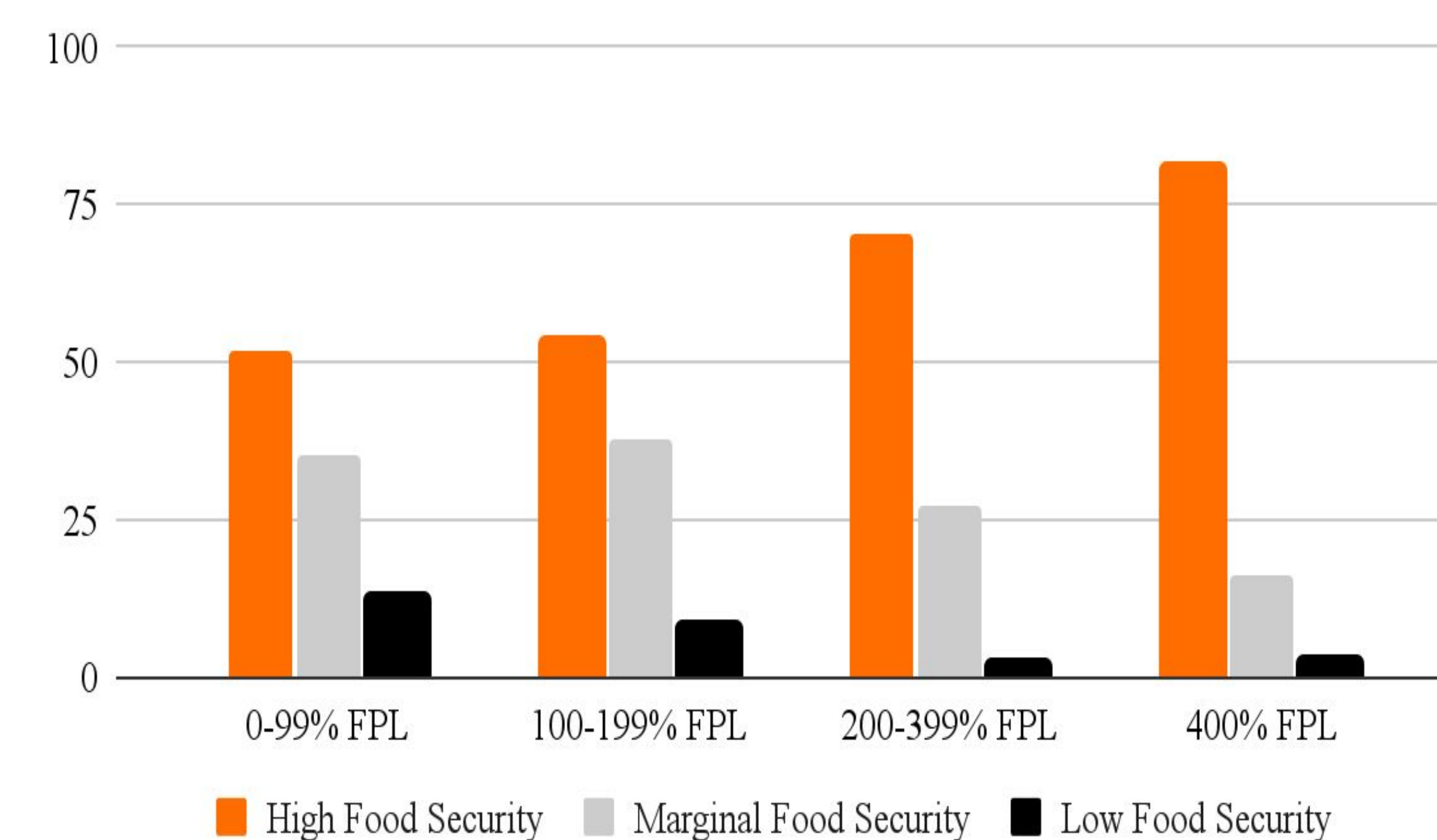


Figure 2. Percent Food Insecurity by Race/Ethnicity

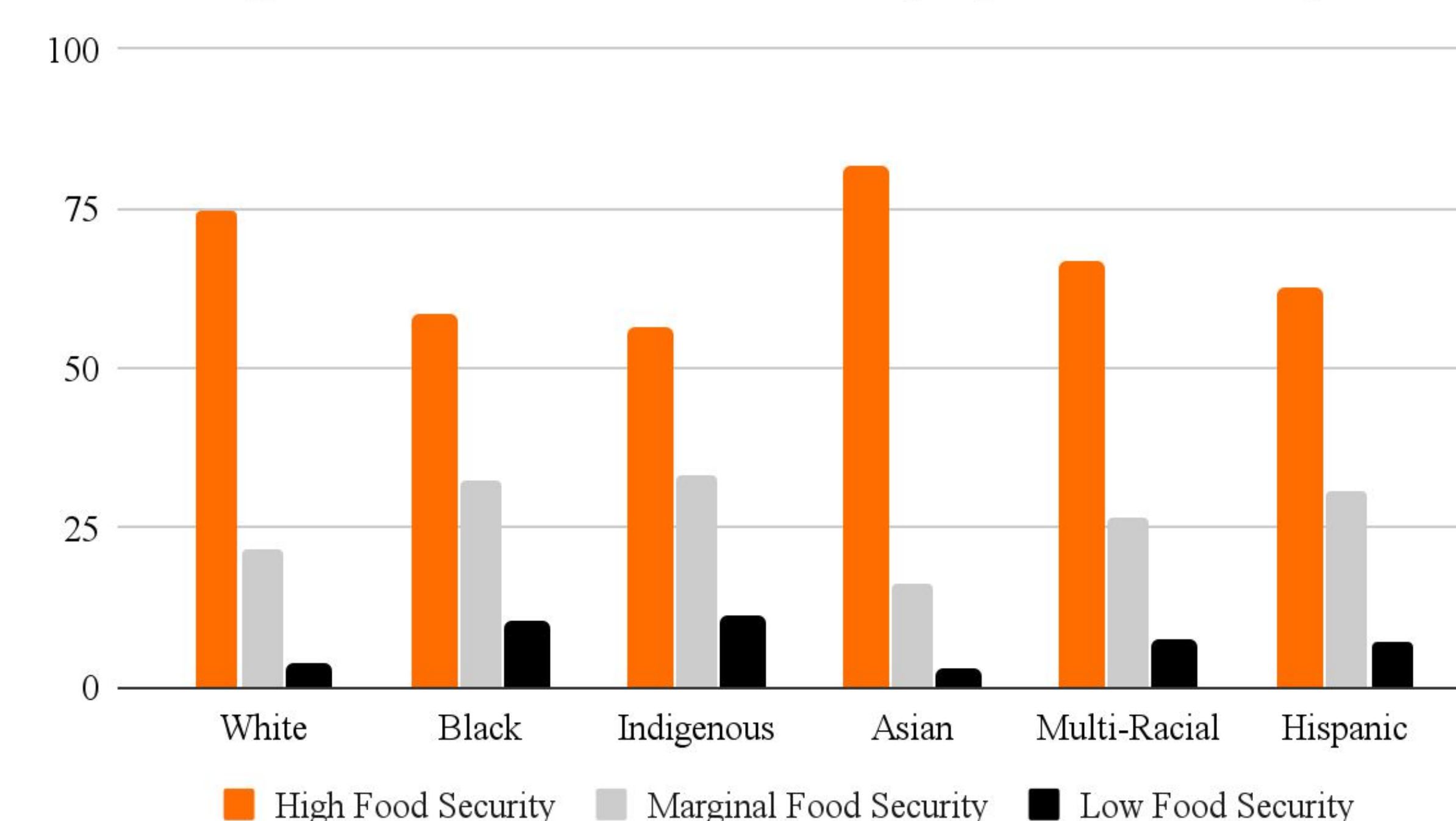


Table 1. Interaction terms for race and food security on child abuse

Food Security	Race/Ethnicity	Interaction Term AOR (95% CI)
High Food Security	White	1 [Reference]
	Black	<b>1.67 (1.41-1.98)</b>
	Indigenous	<b>1.85 (1.15-2.97)</b>
	Asian	0.80 (0.59-1.10)
	Multi-racial	<b>1.70 (1.39-2.09)</b>
	Hispanic	<b>1.10 (0.92-1.32)</b>
Marginal Food Security	White	<b>2.48 (2.23-2.76)</b>
	Black	<b>3.82 (3.19-4.47)</b>
	Indigenous	<b>4.06 (2.79-5.90)</b>
	Asian	0.93 (0.60-1.43)
	Multi-racial	<b>4.07 (3.33-4.98)</b>
	Hispanic	<b>2.34 (1.95-2.82)</b>
Low Food Security	White	<b>6.90 (5.74-8.28)</b>
	Black	<b>6.81 (5.24-8.86)</b>
	Indigenous	<b>7.80 (3.18-19.13)</b>
	Asian	0.81 (0.31-2.10)
	Multi-racial	<b>8.16 (5.36-12.042)</b>
	Hispanic	<b>5.44 (3.95-7.51)</b>

Controlling for food security, age, % FPG, and urbanicity; Bold = P < 0.05

## Discussion

- Children with low food security were 5.19 times more likely to experience child abuse when compared to food-secure children, highlighting a potential target for reducing child abuse.
- Our findings also highlighted significant disparities for racial/ethnic groups, with an increased risk for child abuse at lower levels of food security, particularly for Indigenous and Black Children.
- Effects of intergenerational historical trauma, including the impact on traditional food beliefs and practices, the connectivity to culture and community, and the alterations in food production and consumption are likely linked to the disparities contributing to child abuse in Indigenous children.<sup>5,6</sup>

## CONCLUSION

- Child abuse and food security have a significant association, as well as notable disparities for children of minority groups.
- Potential targets for reduction of child abuse therefore involve factors contributory to food insecurity in Indigenous children, including historical trauma, loss of food sovereignty, and structural/systemic racism.

## RECOMMENDATIONS

- We urge policy makers and grantors to expand funding for food research integrating Indigenous food security measurements and tribally specific interventions in collaboration with tribal leaders.
- Current food systems may integrate cultural food values of individual tribes and minimize barriers to food access to indirectly reduce child abuse.
- This may include expanding federal funding for programs such as the USDA's Indigenous Food Sovereignty Initiative.

## References

