



WAYNE STATE UNIVERSITY

Best food forward: Evaluation of a multilevel nutrition support intervention in two low-income school districts during the COVID-19 pandemic

NOPREN/PAPREN School Wellness Working Group

November 9, 2021

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Disclaimer

The Best Food Forward (BFF) project and evaluation is supported by a grant awarded to the Michigan Department of Education and funded by the Michigan Health Endowment Fund. Contents are solely the responsibility of the authors and do not necessarily represent the official views of the Michigan Department of Education or the Michigan Health Endowment Fund.



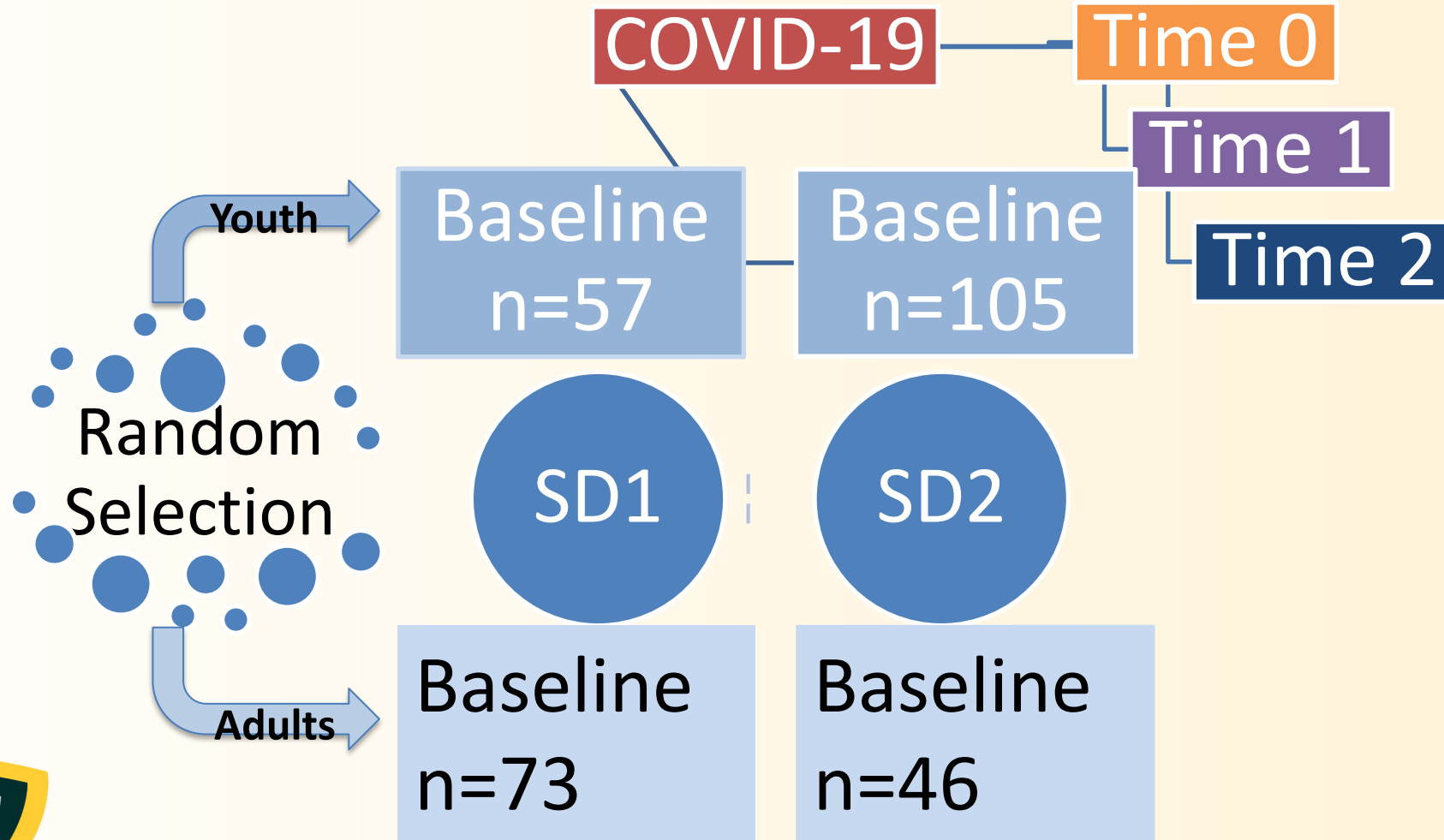
Background



- Best Food Forward (BFF) is a collaborative and holistic approach to food security and healthy eating
- Worked within 8 schools in two districts (Warren and Flint)
- Multiple nutrition supports
 - School pantries
 - Mobile pantries
 - Community pantries
 - School meals
 - Nutrition Education
 - Parent and Youth Engagement



Evaluation Design and Methods



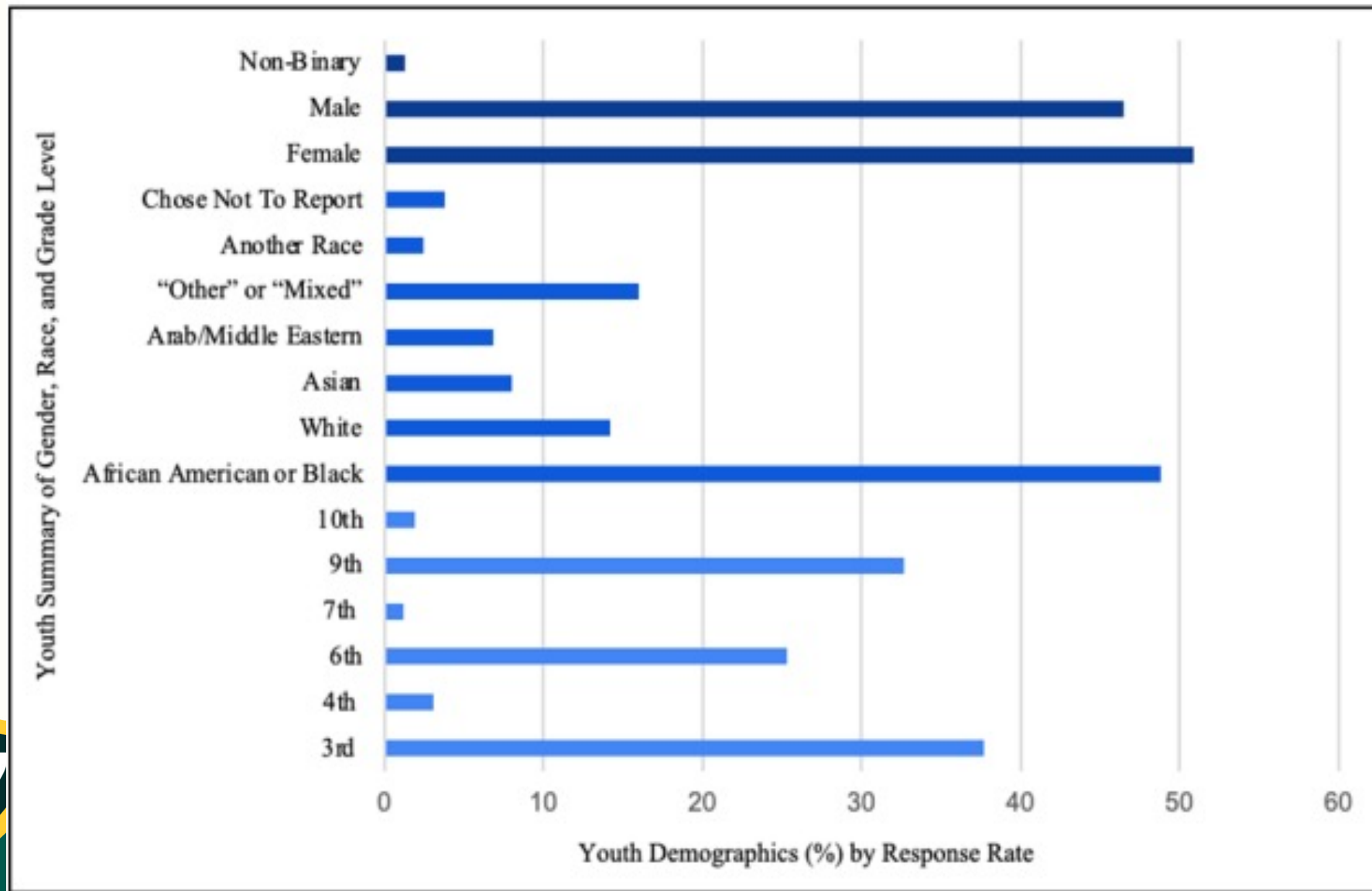
Demographics

Adults: SD1 and SD2

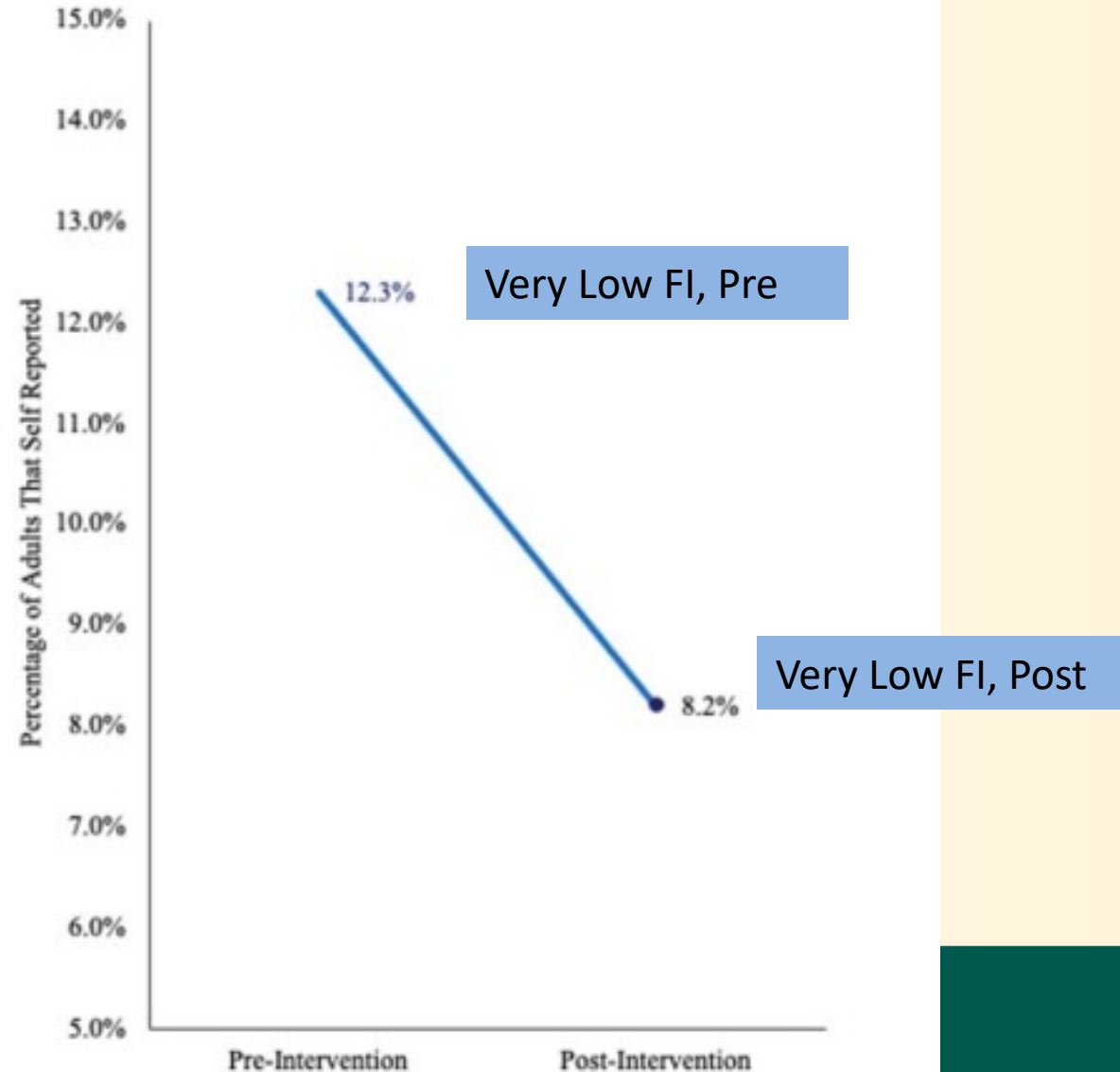
Adult Age (years)	N (%)
35-44	40 (47.1%)
45-54	25 (29.4%)
25-34	16 (18.8%)
55-64	3 (3.5%)
18-24	1 (1.2%)
Adult Gender	
Female	66 (80.5%)
Male	16 (19.5%)
Adult Race/Ethnicity	
African American or Black	31 (36%)
White	27 (31.4%)
Asian	14 (16.3%)
"Other" or "Mixed"	12 (14%)
Family Income	
Less than \$35,000 Annually	40 (48.8%)
More than \$35,000 Annually	42 (51.2%)
Employment Status	
Loss of job due to the COVID-19 Pandemic	45 (36.9%)
No one lost job due to the COVID-19 Pandemic	36 (29.5%)



Demographics Youth: SD1 and SD2



Adult Food Security: SD1 and SD2



Youth Food Security: SD1 and SD2

Level of Food Security	Total Youth, (%)	SD1 Youth, (%)	SD2 Youth, (%)
"High" or "Marginal"	64%		
"Low" or "Very Low"	36%	28.1%	35.3%



Rates of Food Security and Federal Nutrition Program Participation

	Pre-COVID-19 Onset	Post-COVID-19 Onset
Very Low Food Security	12.3%	8.2%
Use SNAP/WIC Benefits	51.1%	50.0%
SNAP/WIC Use 1+ years	61.4%	52.8%
Chose between food and utilities	10.6%	8.2%
Chose between healthy food and inexpensive, unhealthy food	13.1%	11.5%

Dombrowski et al. (2021)



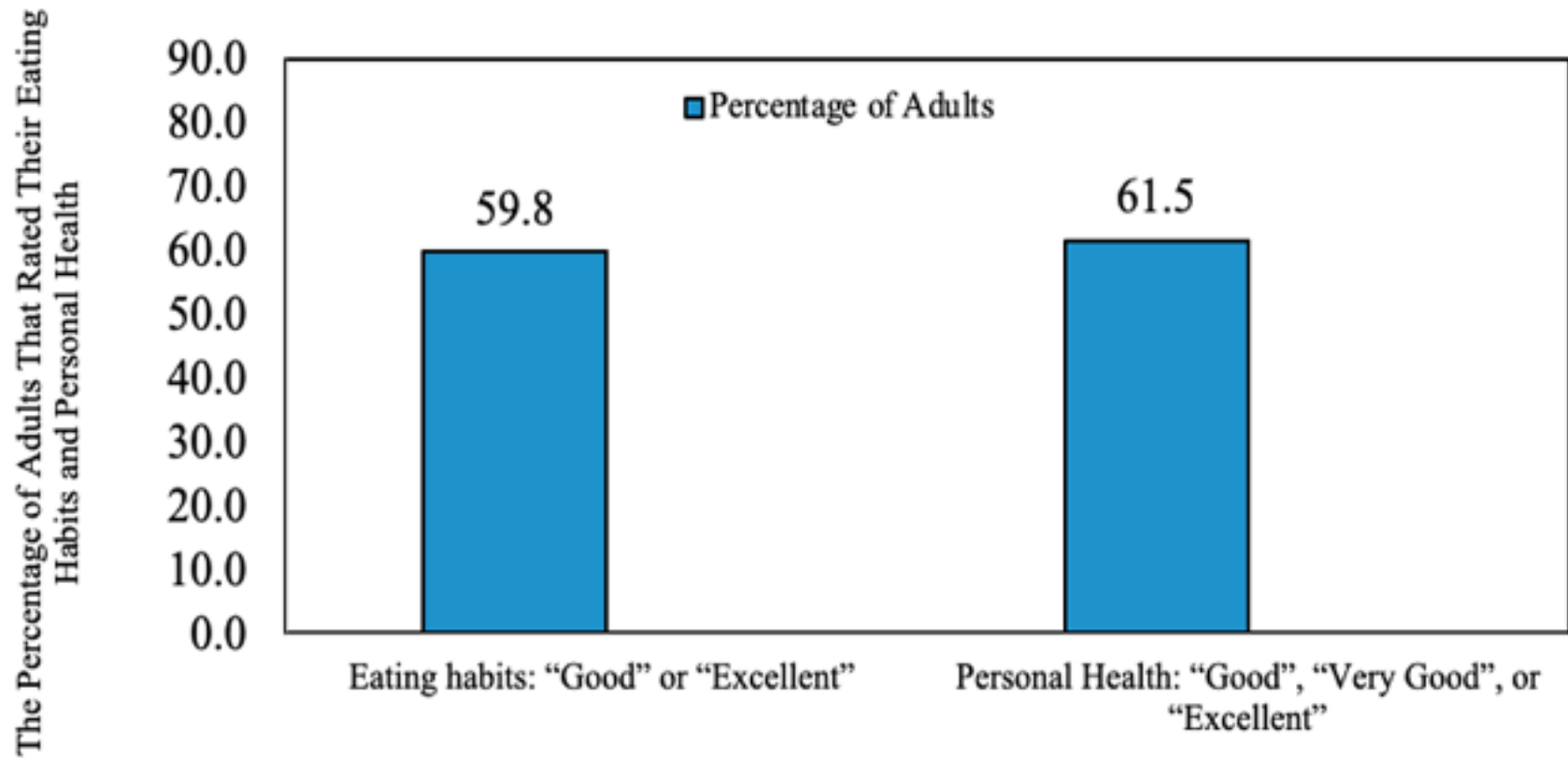
Frequency of Nutrition Support Use by Time Point

	T0	T1	T2
Breakfast at school 3–5 days/week	61.6%	52.4%	27.6%
Lunch at school 3–5 days/week	76.6%	68.4%	38.2%
School pantry 2–4 times/month	31.6%	29.8%	29.3%
Community pantry 2–4 times/month	24.5%	18.6%	18.6%

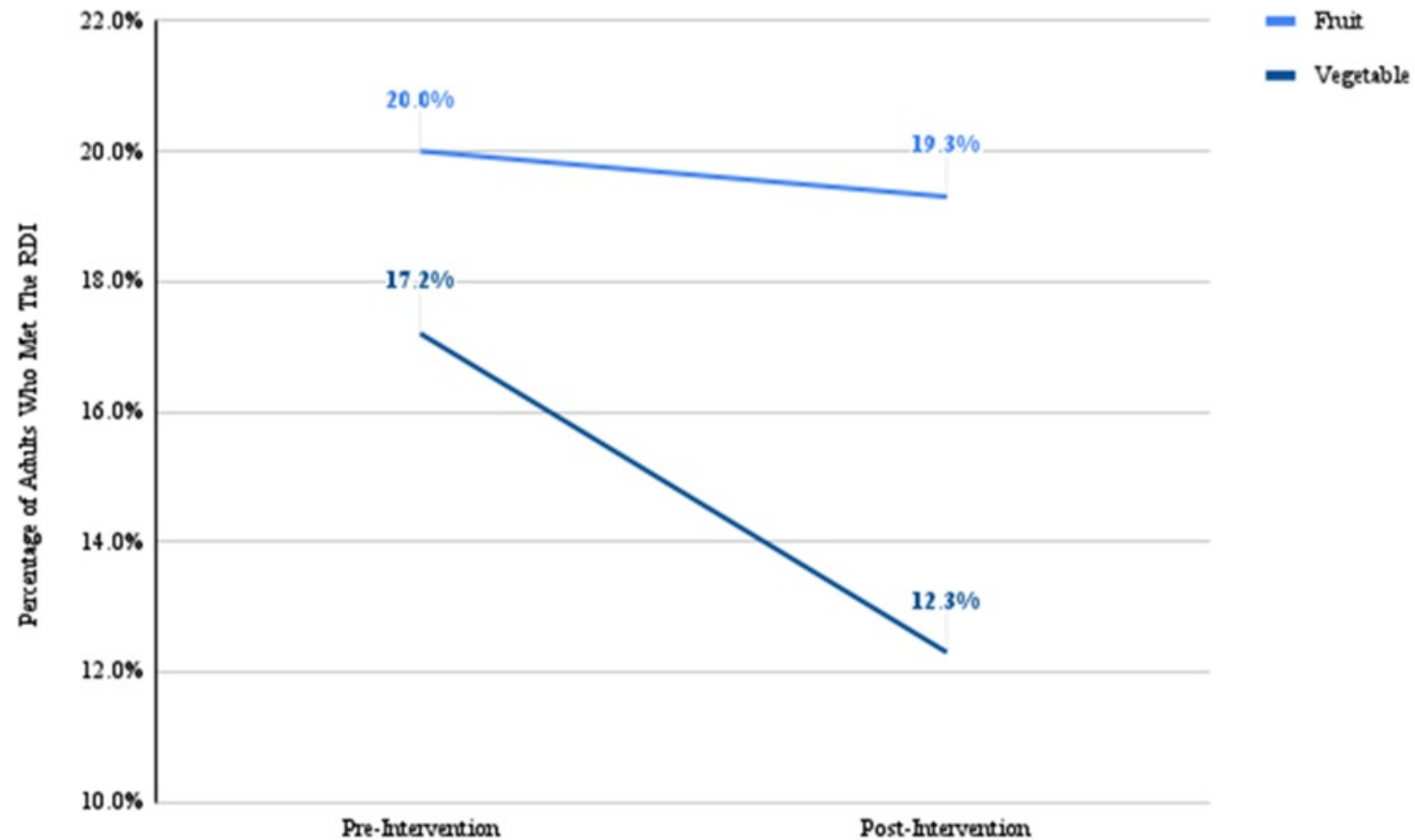
Dombrowski et al. (2021)



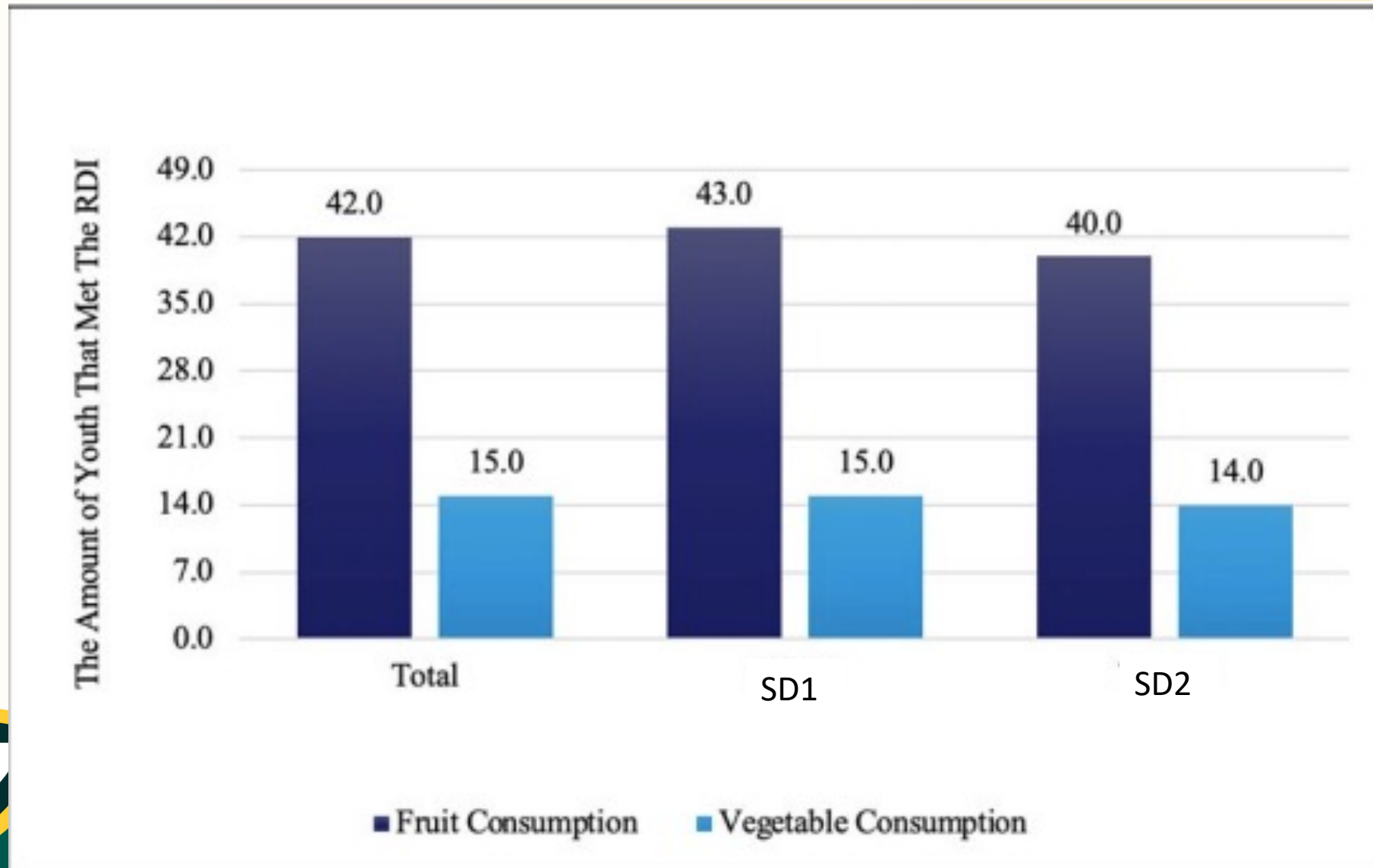
Adult Eating Habits and Personal Health



Parents who Met RDI at T0 and T2



Youth Healthy Eating: SD1 and SD2



Correlations & Health Indicators



Image: Shutterstock

- As BMI-z score increased so did food insecurity (T2) ($R = 0.954$, $p = 0.003$)
- Total vegetable intake was positively associated with diastolic blood pressure ($R = 0.468$, $p = 0.028$) and total fruit intake ($R = 0.677$, $p < 0.001$)
- Vegetable consumption among youth was also positively associated with food security ($R = 0.22$, $p = 0.035$)
- Lower levels of physical activity were also associated with higher levels of a1c among youth ($R = -0.32$, $p = 0.002$)



Conclusions

- No significant increases in fruit and vegetable intake even though healthy food options were available
- Reduction in the number of families reporting very low food security – despite 37% of parents reporting job loss
- Efforts to engage adults, youth, families, and the organizations they rely on for nutrition supports should discern timely, culturally relevant nutrition programs that promote the intake of fresh fruits and vegetables



Policy Recommendations

- Coordinated nutrition security supports could be adopted at the federal level and implemented at the state and local levels
- Universal school lunch and breakfast programs could easily be institutionalized in the next revision of the Child Nutrition Reauthorization
- Continuation of economic supports could improve food security



Image: CNN, 2020



Thank You!



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Publication: Dombrowski, R. D., Bode, B., Knoff, K. A. G., Mallare, J., Moore, E. W. G., & Kulik, N. (2021). Nutrition Supports Deconstructed and Disrupted: An Evaluation of a Multilevel School-Based Intervention during the Time of COVID. *International Journal of Environmental Research and Public Health*, 18(21), 11006. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/ijerph182111006>

