

# Journal Pre-proof

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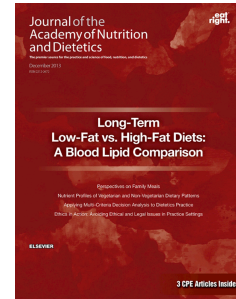
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A call for theory to guide equity-focused Federal Child Nutrition Program policy responses and recovery efforts in times of public health crisis

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Journal Pre-proof

1 The COVID-19 pandemic and its related mitigation efforts have had a dramatic impact on food  
2 and nutrition security in the United States. During this period, families with children were  
3 particularly vulnerable, demonstrating incredible nutritional need. Prior to the pandemic, rates of  
4 food insecurity among households with children had been generally declining. Specifically, the  
5 prevalence of food insecurity among households with children under the age of 18 was 13.6% in  
6 2019 compared to 20.6% in 2011.<sup>1,2</sup> However, resulting from COVID-19, these rates rose to  
7 14.8% in 2020.<sup>1,2</sup> Another measure of food hardship collected during the pandemic has been  
8 food insufficiency (i.e., sometimes or often not having enough to eat) which increased among  
9 households with children from 9.8% in April 2020 to 13.7% in December 2020.<sup>3</sup> Food insecurity  
10 and insufficiency rates are further pronounced in Black, Indigenous, and People of Color  
11 (BIPOC) households. For example, in contrast to households overall, food insecurity in Black  
12 and Hispanic/Latinx headed households increased in 2020 during the pandemic, resulting in  
13 Hispanic children being more than twice as likely, and Black children almost three times more  
14 likely, to live in a food-insecure household than white children.<sup>2</sup> Consequently, not only is there  
15 a need for our national food and nutrition assistance system to improve food insecurity and food  
16 insufficiency in families with children generally, but also to address racial/ethnic,  
17 socioeconomic, and other disparities.

18 The United States Department of Agriculture's (USDA) Child Nutrition Programs— including  
19 the National School Lunch Program (NSLP), School Breakfast Program (SBP), Summer Food  
20 Service Program (SFSP), and Child and Adult Care Food Program (CACFP)— have historically  
21 played an important role in improving the diets and food security of children, particularly those  
22 from historically marginalized populations. Prior research has documented the benefits of  
23 participating in these Child Nutrition Programs, including healthier foods for children and  
24 reductions in food insecurity among families.<sup>4-6</sup> While there are many strengths to these  
25 programs, the pandemic has also highlighted the need to strengthen Child Nutrition Program  
26 policies for school-aged children. There are currently promising opportunities given the new  
27 directions and leadership of the Biden administration; on President Biden's first day in office, he  
28 signed Executive Order 13985 "Advancing Racial Equity and Support for Underserved  
29 Communities Through the Federal Government."<sup>7</sup> Building upon food insecurity, current U.S.  
30 Secretary of Agriculture Tom Vilsack has emphasized the USDA's commitment to advancing

31 nutrition security, which acknowledges the co-existence of food insecurity and diet-related health  
32 inequities and includes prioritizing equitable systems.<sup>8</sup> Evidence of this commitment is apparent  
33 in recent USDA funding for schools, which included an additional \$1 billion for purchasing  
34 domestically-grown foods for school meal programs.<sup>9</sup> Further, the administration has also  
35 highlighted that nutrition equity is a priority, including organizing a White House Conference on  
36 Hunger, Nutrition, and Health, with a focus on efforts to develop and catalyze a coordinated  
37 strategy to address hunger, improve nutrition, and reduce diet-related disparities.<sup>10</sup> Additionally,  
38 Congress passed the “Keep Kids Fed Act” in June of 2022, which temporarily increased  
39 reimbursement rates for school meals and family day care homes. These are all important steps  
40 as the USDA considers further expanding federal nutrition assistance programs as legislative  
41 priorities. Innovation, adaptations, and flexibilities to the Federal Child Nutrition Programs have  
42 been critical to supporting health and nutrition during the pandemic, and as public health moves  
43 towards pandemic recovery, it is essential that public health theory be used to ensure a focus on  
44 nutrition equity (e.g., “the absence of avoidable and unfair differences in nutritional intake and in  
45 the health outcomes perpetuated by these differences.”<sup>11</sup>)

47 It is well recognized that the root causes of food insecurity and insufficiency— as well as  
48 obesity— and disparities therein, are complex and result from structural inequities combined with  
49 policies and systems that alter food environments.<sup>12-14</sup> Therefore, they should also be viewed as a  
50 key target for intervention.<sup>12-14</sup> As the country moves forward with the lifting of pandemic  
51 restrictions, this time of transition will facilitate a shift from emergency policy waivers and  
52 flexibilities towards more sustainable, permanent policies and programs targeting the root causes  
53 of structural inequities. Despite the extremely concerning levels of need, the country is also  
54 experiencing a time of great opportunity in child nutrition. There are many opportunities to  
55 improve child nutrition programs, and it is critical to identify and focus on those that are most  
56 promising to address health and nutrition equity.

### 57 **Theory is a critical instrument for framing public health nutrition efforts moving forward**

58 At a time when public health practitioners, policymakers, and other stakeholders are seeking to  
59 shape nutrition policy moving forward, recent calls have been made to leverage implementation

60 science in the COVID-19 public health response.<sup>15</sup> Alongside this shift, theory is a critical  
61 instrument that can structure new directions in child nutrition research and policies to address  
62 some of the pitfalls revealed by the pandemic, such as the impact on health equity. There are a  
63 range of theories that apply to child/family health, nutrition equity, and domestic policy  
64 initiatives. Here we utilize the Getting to Equity (GTE) Framework,<sup>12</sup> the “Stigma and Food  
65 Inequity” framework,<sup>16</sup> and the Family Ecological Model (FEM)<sup>17</sup> to demonstrate the utility of  
66 theory for guiding domestic public health nutrition policy.

67 The GTE framework, developed by Shiriki Kumanyika, stipulates that disparities in obesity,  
68 food insecurity, and other health issues cannot be addressed without attention to underlying  
69 inequities.<sup>10</sup> The GTE framework prioritizes policy, system, and environmental interventions that  
70 reduce public health disparities and highlights four key domains: (1) increasing healthy options;  
71 (2) reducing deterrents to healthy behaviors; (3) improving social and economic resources; and  
72 (4) building community capacity. Anti-hunger programs, such as those administered through  
73 federal Child Nutrition Programs, are considered a key component of this framework as a  
74 mechanism to improve social and economic resources; they can provide economic relief (and  
75 indirectly increase food purchasing power) among households when children are receiving meals  
76 through these USDA programs. The GTE framework also draws attention to equity-oriented  
77 strategies that are mindful of and responsive to social disadvantage (i.e., unfavorable social,  
78 economic, or political conditions that some groups of people systematically experience based on  
79 their relative position in social hierarchies) to guide the formulation of policies and programs that  
80 address— rather than compound— inequities.<sup>18</sup> Further, the GTE framework encourages the  
81 compilation of information to answer key questions with a focus on *who* is excluded from  
82 benefits and *why* this is occurring. Therefore this framework is ideal to critically evaluate and  
83 improve Child Nutrition Programs from a nutrition equity perspective.

84 Another nutrition equity theory that can be useful to apply to Child Nutrition Programs is the  
85 “Stigma and Food Inequity” Framework developed by Earnshaw and Karpyn.<sup>16</sup> This framework  
86 highlights the powerful role that stigma plays in food inequities, particularly the social stigma  
87 associated with poverty and participation in federal safety net programs, such as Child Nutrition  
88 Programs. This framework also acknowledges the intersectionality of stigma, such as the  
89 potential simultaneous stigma associated with poverty, race, ethnicity, or gender. Additionally,

90 the Stigma and Food Inequity framework discusses “stigma manifestations,” such as structural  
91 manifestations of stigma (e.g., food policies that result in limited food resources), and individual  
92 manifestations, both as perceivers (e.g., stereotypes, prejudice, and discrimination which can  
93 result in practices that impact food decisions, such as implementation decisions regarding Child  
94 Nutrition Programs) and as individuals who are the targets of stigma. Lastly, this framework  
95 notes: (1) mediating mechanisms among individuals who are the targets of stigma, including  
96 access to resources (e.g., availability of high quality, healthy foods), household food  
97 environments, and psychosocial/behavioral processes in response to stigma (e.g., coping with  
98 stressors through unhealthy eating behaviors); and (2) moderating contextual factors, including  
99 history, culture, and human development. This framework provides an additional important lens  
100 when examining Child Nutrition Programs from a nutrition equity perspective.

101 The FEM, a family-centered model for childhood obesity prevention, was developed by Davison,  
102 Jurkowski, and Lawson to address the limitations of prior theories, which failed to address the  
103 importance of the family unit (e.g., the role of parents/guardians) on influencing children’s  
104 health-related behaviors, such as diet.<sup>17</sup> Importantly, this model also highlights the complexity of  
105 family life, especially for lower-income households, and the need to consider the broader context  
106 that influences parenting behaviors and therefore child nutrition outcomes. Specifically, FEM  
107 focuses on the “family ecology” and “family social and emotional context” as playing key roles  
108 in impacting parenting behaviors and practices, which in turn impacts both parent health  
109 outcomes and child behaviors and health outcomes. First, the family ecology considers factors  
110 including (1) family history/structure (e.g., race, ethnicity, family health risks, and generational  
111 poverty); (2), child-specific characteristics (e.g., age and gender); (3) organizational factors (e.g.,  
112 child vs family centered services); (4) community factors (e.g., availability of healthy foods); and  
113 (5) media and policy factors (e.g., marketing to children). Second, the family social and emotion  
114 context emphasizes (1) family knowledge and social norms (e.g., beliefs and self-efficacy  
115 regarding healthy behaviors); and (2) social disparities and chronic stress (e.g., food insecurity).  
116 FEM’s key components— which complement the broader scope of the other equity frameworks—  
117 highlight the opportunities for positive and sustainable health-related changes and draws  
118 attention to factors that may affect the equitable utilization of Child Nutrition Programs.

119 **Using Theory to Strengthen the National School Lunch Program (NSLP) and School**  
120 **Breakfast Program (SBP)**

121 The NSLP is the largest of the Child Nutrition Programs, and prior to the pandemic in 2019,  
122 provided on average 29.6 million children in public and private non-profit schools with free or  
123 low-cost lunches daily throughout the school year.<sup>19</sup> Approximately half of students who  
124 participate in the NSLP also participate in the SBP, which provides free or low-costs breakfasts  
125 (14.8 million children in 2019).<sup>20</sup> As a result of the pandemic and the rapid shift to remote  
126 learning for school-aged children in March of 2020, income eligible school-aged students  
127 nationwide lost access to school meals traditionally served through the National School Lunch  
128 Program (NSLP) and School Breakfast Program (SBP).<sup>15,21</sup> When school meal service resumed  
129 remotely for students using various methods, on average 22.6 million children received school  
130 lunch and 12.5 million children received school breakfasts, a decrease of approximately 7  
131 million lunches and 2.4 million breakfasts daily compared with the year prior.<sup>15,21</sup>

132 *Universal Free School Meals*

133 To help address access to school meals, as well as the financial toll experienced by schools with  
134 the reductions in school meal participation, a universal free school meal (UFSM) policy was  
135 implemented. While this policy increases access to school meals for all children, this policy may  
136 have important implications from a nutrition equity lens as it may lead to *greater* benefits among  
137 children at higher risk of poor health (and educational) outcomes, thus reducing disparities (see  
138 **Figure 1**). Specifically, children from lower-income households that were already eligible for  
139 free or reduced-priced meals may be more likely to participate in school meals due to reductions  
140 in **anticipated stigma** (e.g., students do not want their peers to know they come from lower-  
141 income households and are eligible for free/reduced-price meals due to the anticipated stigma  
142 associated with poverty [*Stigma and Food Inequity Framework*]).<sup>22-24</sup> Additionally, a UFSM  
143 policy expands the reach of school meal programs to children from households that were *near*  
144 eligible for free or reduced-priced meals but still facing food insecurity.<sup>25,26</sup>

145 As a result, UFSM has the potential to also address multiple domains of the GTE framework  
146 including the ability to (1) improve **social and economic resources** for lower-income



147 households via UFSM implemented through anti-hunger programs (NSLP/SBP);<sup>22</sup> (2) **increase**  
148 **access to healthy options**, especially among children living in both food deserts (i.e., low  
149 income areas with limited supermarket availability) and food swamps (i.e., areas inundated with  
150 unhealthy food retailers;<sup>27-30</sup> and (3) **reduce deterrents to healthy behaviors** as students who  
151 consume healthier school foods are less likely to consume unhealthy foods after school, which  
152 may be particularly impactful for children living in lower-income communities and communities  
153 of color that are typically targeted by fast food restaurants and other less healthy food outlets  
154 (also highlighted as a **structural manifestation of stigma** in the Stigma and Food Equity  
155 framework).<sup>31,32</sup> An additional **structural manifestation of stigma/deterrent to healthy**  
156 **behaviors** that is addressed through UFSM is around food policies related to the challenges often  
157 faced by families to complete school meal application forms for free or reduced-price meals  
158 (e.g., language barriers or low literacy);<sup>24</sup> with a UFSM policy, this is no longer required for a  
159 child to receive free or low cost school meals. From a FEM lens, in addition to addressing the  
160 **media and policy factors** (e.g., policies related to competing school meals applications), as well  
161 as the **community factors** (e.g., availability of healthy foods) already noted in the GTE  
162 framework, a UFSM policy may also play a role in reducing **social disparities and chronic**  
163 **stress** for households by alleviating some economic stress and reducing food insecurity.<sup>22</sup>

164 However, unintended consequences if a UFSM policy must also be considered; participating  
165 schools cease to collect free and reduced-price meal applications, but this data has historically  
166 been used to allocate educational funding to schools in lower-income communities.<sup>29</sup> Therefore,  
167 a key consideration will be identifying alternative measures and data sources to inform the  
168 allocation of school funds in an equitable manner. As highlighted in a previous research brief,  
169 “Improving Access to Free School Meals: Addressing Intersections Between Universal Free  
170 School Meal Approaches and Educational Funding,” there are multiple strategies that hold  
171 promise, including expanding waivers to use income data available as part of Medicaid  
172 (currently already being done in 19 states).<sup>33</sup> Additionally, as Medicaid eligibility requirements  
173 are less restrictive than other programs, such as the Supplemental Nutrition Assistance Program  
174 (SNAP), this strategy can help to ensure immigrant families are considered when allocating  
175 educational funds.<sup>33</sup> Overall, despite the potential benefits of UFSM, this policy is set to expire at

176 the end of the 2021-22 school year. State UFSM policies, such as those enacted in California,<sup>34</sup>  
177 Maine,<sup>35</sup> and Vermont<sup>36</sup> should therefore be strongly considered to promote nutrition equity.

### 178 *Other School Nutrition Policies and Opportunities*

179 The pandemic has also further highlighted the challenges faced by many schools meal programs  
180 that should also be considered from a GTE, FEM, and Stigma and Food Inequity perspective.  
181 School nutrition policies and opportunities that can help address some of these challenges  
182 include breakfast in the classroom policies, minimum lengths for school lunch periods, and  
183 targeted grants for equipment, infrastructure, and trainings for cafeteria employees (**Figure 1**).<sup>37</sup>  
184 First, as many schools began short-term policies to eat school meals in the classroom to address  
185 crowding concerns in cafeteria, this highlighted the potential feasibility and benefits of breakfast  
186 in the classroom policies.<sup>37</sup> Breakfast in the classroom can reduce **deterrents to healthy**  
187 **behaviors** (e.g., many students, such as those in rural areas who may have to travel longer  
188 distances, often do not arrive in time for traditional breakfast before the bell [*GTE*]).<sup>38</sup>  
189 Additionally, breakfast in the classroom policies can **increase access to healthy options**, and  
190 may be particularly helpful in addressing inequities by reducing the **structural manifestation of**  
191 **stigma** associated with school breakfast, as it is frequently perceived as a program only utilized  
192 by students from lower-income households (*GTE/Stigma and Food Inequity*).<sup>24,39</sup> Similar to the  
193 mechanism noted for UFSM, breakfast in the classroom also addresses **media and policy**  
194 **factors, community factors, and social disparities and chronic stress** (*FEM*).

195 Second, while a benefit of a UFSM policy has been an increase in school meal participation, the  
196 pandemic has also highlighted the challenges of sufficient time for students to eat due to the  
197 longer lunch lines (a challenge already faced by school with a greater percentage students  
198 eligible for free or reduced-priced meals).<sup>37</sup> Minimum lengths for school lunch periods (e.g., 25-  
199 30 minutes) can **reduce deterrents to healthy behaviors** by ensuring sufficient time for  
200 students to eat meals, particularly as students from lower-income households who receive free or  
201 reduced-price school meals must spend time waiting on the cafeteria line (which is further  
202 exacerbated in schools with a greater percentage of students who receive free or reduced-priced  
203 meals [*GTE*]).

204 Lastly, the pandemic underscored the challenges that schools face in preparing more meals on  
205 site (especially those that include fresh fruits and vegetables), highlighting the needs for grants  
206 for equipment, infrastructure, and trainings for cafeteria employees, particularly for school  
207 districts with a greater percentage of lower-income and/or racial and ethnic minority  
208 households.<sup>37</sup> These grants could serve as a **social and economic resource** that could also  
209 **increase access to healthy options** by enhancing schools' abilities to provide healthier,  
210 culturally preferred meals in schools (*GTE/FEM*). Completing complex applications and high  
211 matching requirements are often barriers for under-resourced schools, and therefore simplified  
212 application procedures and eligibility requirements can help support this process.<sup>38</sup> Additionally,  
213 greater allocation of funds for equipment and infrastructure to schools in historically  
214 marginalized communities can help address **structural manifestations of stigma** (e.g., structural  
215 inequities in existing school kitchen environments). Training opportunities for cafeteria staff to  
216 incorporate more culturally appropriate meals that aligns with **family history** can also help to  
217 address **structural manifestations of stigma** (e.g., differential ability of schools to have meals  
218 reviewed by a nutritionist) and unintentional **stigma among perceivers** which can influence  
219 which foods are served (*FEM/ Stigma and Food Equity*). There may be secondary benefits for  
220 many cafeteria workers (and their families) who both work and are themselves part of  
221 historically marginalized communities through an increase in **family knowledge and social**  
222 **norms**.

### 223 *Family and Community Engagement*

224 Moving forward, innovative opportunities to build **community capacity/ family knowledge and**  
225 **social norms**, particularly among parents/guardians from underrepresented backgrounds, should  
226 be considered. Beyond PTAs, Community Advisory Boards including parents and other local  
227 organizations may be a viable structural option to create opportunities for community oversight  
228 of relevant policy and processes and inspire intersectoral action to advance child health equity.  
229 Additional creative strategies can be used to involve parents/guardians who may already have  
230 limited time, such as social media campaigns that encourage parents to share images of family  
231 recipes that school cafeterias can then bring to scale. Meaningful community engagement can  
232 support greater insights into **family social and emotional contexts** (including **family**  
233 **knowledge and social norms**, and aspects of **social disparities and chronic stress** [e.g., the

234 need for more social support and how school food policies may impact household resource  
235 shortfalls and parent mental health]) that could allow for the development of more inclusive and  
236 equitable programs for families in different contexts (*FEM*).

237 Overall, to help monitor the impact of school nutrition policies on child health and nutrition  
238 equity, assessments can be integrated into nationally administered, comprehensive studies (e.g.,  
239 School Nutrition and Meal Cost Study) as a feasible strategy for data collection. These  
240 assessments can address key gaps in current national data collection efforts, including **family**  
241 **ecology** (e.g., family history & culture) and **family knowledge and social norms** to better  
242 understand program participation decisions (*FEM*). UFSM policies (including the state-level  
243 legislation which will continue this policy) will be especially important to evaluate from a  
244 nutrition equity lens— particularly the impact on racial and ethnic minorities— including stigma,  
245 school meal participation and consumption, diet quality, and child and household nutrition  
246 security. Additionally, to prevent unintended consequences of this policy, research should focus  
247 on the effectiveness and equity impact of alternative measures of poverty to allocate education  
248 funding. Similar equity-oriented outcomes should be considered for breakfast in the classroom,  
249 minimum lunch period lengths, and other school meal policies.

### 250 *Using Theory to Strengthen the Summer Feeding Programs*

251 The Child Nutrition Summer Feeding Programs provide free meals and snacks to school-aged  
252 children and adolescents during the summer months when school is not in session. These  
253 programs include the Summer Food Service Program (SFSP), which is a state-administered  
254 program through community sites such as schools and community centers in income-eligible  
255 areas, and the Seamless Summer Option (SSO), which enables the continuation of meal service  
256 rules and nutrition standards of NSLP during summer months.<sup>40,41</sup> However, these programs are  
257 historically underutilized; in 2019, the SFSP and SSO collectively served fewer than 2.7 million  
258 children on an average weekday, in stark contrast to the nearly 30 million children who received  
259 free or reduced priced meals via the NSLP during this same time frame.<sup>21,42</sup> This may in part  
260 explain the elevated food insecurity rates that are typically observed during summer months  
261 among lower-income households with children.<sup>21,42,43</sup> However, few studies have examined these

262 low child participation rates in Summer Feeding Programs or the benefits of participation,  
263 highlighting the need for more work in this area.<sup>6</sup>

264 During the pandemic-related school closures, summer feeding programs became an instrumental  
265 mechanism for serving meals to children and adolescents. The rapid deployment of program  
266 waivers allowed for temporary program flexibilities in 2020-2021 that should be examined from  
267 a GTE, Stigma and Food Inequity, and FEM framework to consider policies that potentially  
268 should be continued to further strengthen summer meals and promote nutrition equity (see  
269 **Figure 2**). First, the USDA allowed summer meals to be served in non-congregate settings (i.e.,  
270 students no longer had to eat the meals at a specific summer meals site in a group setting),  
271 including home delivery; delivery along school bus routes; and meal pick-up at schools or other  
272 locations, including via drive-thrus. Second, multiple days' worth of meals could be picked up at  
273 one time. Third, "area eligibility" requirements were waived which allowed districts to provide  
274 meals to students from lower-income households living in areas with more wealth. Lastly,  
275 Summer Pandemic Electronic Benefit Transfer (P-EBT) was provided as a temporary provision  
276 of emergency benefits for eligible families to purchase food (as a continuation of a P-EBT effort  
277 that began during the school year). These flexibilities address multiple aspects of the GTE and  
278 FEM to promote nutrition equity and health outcomes among children at greatest risk for food  
279 insecurity: **(1) improving social and economic resources** via implemented through anti-hunger  
280 programs (Summer Feeding Programs [*GTE*]); **(2) reducing deterrents to healthy behaviors**  
281 such as by making it easier for children to access summer meals (*GTE*); **(3) increasing access to**  
282 **healthy options** (and **improving community factors**) by providing healthier foods, especially in  
283 areas that are food swamps or food deserts [*GTE/ FEM*]; and (4) addressing **social disparities**  
284 **and chronic stress** by creating more feasible and lower burden opportunities to access summer  
285 meals (*FEM*). Additionally, these flexibilities may have reduced some of the **structural**  
286 **manifestations of stigma** associated with receiving summer meals in a congregate setting  
287 (*Stigma and Food Inequity*).

288 Moving forward, summer feeding programs could be further strengthened by **building**  
289 **community capacity** (*GTE*), such as strategic partnerships with local farmers markets (including  
290 BIPOC farmers and farmers from other historically marginalized backgrounds) to integrate more  
291 fresh produce, as well as by leveraging opportunities to consider the family unit, rather than just

292 the individual child, to promote child nutrition and reduce health disparities. Communications in  
293 multiple languages that promote health equity through positive images and framing may further  
294 **reduce deterrents** and **stigma manifestations** to participation as well (*GTE/ Stigma and Food*  
295 *Inequity*). Similar to the NSLP and SBP, FEM components should be integrated including **family**  
296 **history** (e.g., cultural preferred meals served), **organizational factors** and **community factors**  
297 (e.g., work demands among parents and access to public transportation, respectively) that may  
298 need to be considered when determining when or how meals are accessed/distributed, and **family**  
299 **knowledge and social norms** (e.g., thoughtful approaches to potentially integrate parent  
300 nutrition knowledge components).

301 The waivers for Summer Feeding Programs as a mechanism to provide meals to children during  
302 the pandemic represents a research opportunity to better understand the impact of these changes  
303 compared with the traditional ways summer meals are served. As highlighted by a recent case  
304 study in large urban school districts during COVID-19, research should examine the multiple  
305 methods used by Summer Feeding Programs during the pandemic to help identify which  
306 flexibilities may have led to the greatest improvements in summer meal program participation.<sup>44</sup>  
307 Specifically, working with school districts and Departments of Education to obtain existing data  
308 collected during the pandemic can elucidate the impact of (1) providing multiple meals/days  
309 worth of food; (2) non-congregate feeding; (3) flexibility in delivery methods; and (4) summer  
310 meal sites in areas that are food swamps and food deserts on outcomes including the differential  
311 impact on children's access to summer meals and diet quality over summer months. Research  
312 specifically examining these flexibilities within the **family social and emotional context (FEM)**  
313 could lead to a more nuanced understanding of whether/how these changes might be extended in  
314 the future. Unintended consequences should also be considered, such as the impact of providing  
315 larger boxes of food may have on families with limited transportation options or continued  
316 reluctance among Latinx immigrants who fear accessing government resources to support their  
317 families.<sup>45</sup> Additionally, similar to School Wellness Policies, Summer Wellness Policies can be  
318 developed that include diverse stakeholders, including decision makers (e.g., those responsible  
319 for determining sites, hours of operation, foods offered, and communication materials/strategies)  
320 and community members (e.g., parents and youth) to ensure equitable access and impact of  
321 Summer Feeding Programs and to meet the needs of different communities. More research is



322 also needed to understand the impact of P-EBT on food insecurity and if this initiative should be  
323 continued during summer months (while P-EBT and other temporary relief efforts blunted  
324 COVID-related increases in food insecurity, evidence is mixed on whether or not they returned  
325 food insecurity rates to pre-pandemic levels).<sup>46-48</sup> Additionally, there is a need to understand the  
326 impact of these policies on households— both short and long-term— including **social disparities**  
327 **and chronic stress** (including the ability to address chronic disruption of family routines, lack of  
328 a sense of control, resource shortfalls, and parent mental health [*FEM*]). Data is also needed to  
329 assess the SFSP nutritional quality (e.g., menu analyses) as these meals do not align with the  
330 strong school meal/SSO standards.<sup>3</sup> This data would support efforts to assess the equity impact  
331 of SFSP.

332

### 333 *Using Theory to Strengthen the Child and Adult Care Food Program (CACFP)*

334 CACFP provides reimbursement for meals and snacks served to children and adults who are  
335 enrolled at participating child care centers and adult care homes.<sup>49</sup> It is estimated that 4.2 million  
336 children receive foods through CACFP every day.<sup>49</sup> CACFP reimbursable meals and snacks  
337 must meet USDA meal pattern requirements for nutrition. However, during the pandemic,  
338 younger children lost access to meals and snacks provided at participating daycare centers and  
339 childcare homes through the CACFP due to local and statewide lockdown orders.

340 During the early months of the COVID-19 pandemic, the Families First Coronavirus Response  
341 Act authorized waivers for CACFP implementation (e.g. grab-and-go meals for families) that  
342 were intended to ensure continuity of meal provisions during widespread daycare closures.<sup>50</sup>  
343 Despite these efforts, there was a sharp decrease (approximately 35-41% fewer meals) in  
344 CACFP-reimbursed meals served compared to the year preceding the pandemic (March-  
345 September 2020 vs 2019).<sup>46,50,51</sup> There are many potential reasons for this decrease including a  
346 fragmented system of providers and limited program capacity for implementation at large  
347 scale.<sup>46,50,51</sup> In addition to the decreases in participation, many CACFP participants were initially  
348 excluded from P-EBT benefits with implementation varying across states, and thus had fewer  
349 resources to replace the meals that they no longer had access to (P-EBT was formally expanded

350 to all children on October 1, 2020).<sup>52</sup> Moving forward, there are several policies that could  
351 support nutrition equity and child health through a GTE, Stigma and Food Inequity, and FEM  
352 lens (see **Figure 3**). First, the continuation of the COVID-19 expansion allowing young adults up  
353 to 24 years old to be eligible at homeless and youth-serving shelters can have the potential for a  
354 profound impact on addressing diet related disparities among a particularly vulnerable  
355 population via **improving social and economic resources** and **increasing healthy options**  
356 (*GTE*). Beyond pandemic related policies, increasing reimbursements for CACFP would **build**  
357 **community capacity** (*GTE*) by improving community economic resources via supporting child  
358 care centers. For example, this could be achieved through a policy that allows child care centers  
359 in low-income areas to automatically receive the highest CACFP reimbursement rates if at least  
360 40% of children qualify for free or reduced-price meals. Second, allowing children in full-day  
361 child care to receive an afternoon snack or supper could **increase healthy options** for children  
362 (*GTE*) and **reduce social disparities and chronic stress** (*FEM*) for parents, which as noted in  
363 the FEM can have positive downstream consequences for children's health outcomes. Similar to  
364 school and summer meals, the GTE, FEM, and Stigma and Food Inequity frameworks should all  
365 be considered for further opportunities to address nutrition equity and improve child health  
366 through culturally preferred options and thoughtful approaches to parent/guardian engagement.

367 The pandemic has also highlighted that data on CACFP participants are severely lacking or  
368 nonexistent; Bauer and colleagues note that CACFP data collection efforts vary by state, and no  
369 known database exists that includes comprehensive data on either participants or providers  
370 nationally.<sup>50</sup> As a result, it is currently impossible to assess whether vulnerable populations are  
371 connected to needed resources, and whether participant outcomes (e.g. food security and health)  
372 are linked to participation.<sup>50</sup> Creative research strategies and data linkages to collect key  
373 information while minimizing the burden of data collection on participants will be essential to  
374 developing this understanding. For example, partnerships with state programs offices (e.g., WIC  
375 or transitional assistance departments) can provide important information or facilitate participant  
376 recruitment for Child Nutrition Programs. Actions at the federal level to upgrade state data  
377 systems for participation in federal programs will facilitate the ability to link data.

## 378 **Conclusion**



379 In summary, the United States is currently transitioning from acute, emergency response efforts  
380 that characterized the early stages of the COVID-19 pandemic, to longer term recovery  
381 initiatives. This time represents a key opportunity to learn from lessons related to the pandemic  
382 and to leverage equity-focused frameworks to identify gaps in the response to strengthen the next  
383 phase of emergency response and recovery. Overall, the pandemic has highlighted the need for  
384 Child Nutrition Programs, but also knowledge gaps that remain regarding their impact. Theory is  
385 a critical tool to guide long term responses, enhance federal nutrition assistance programs,  
386 promote child and family health, and address structural inequities and health disparities. Policies  
387 that can improve equity of access to all Child Nutrition Programs should be considered, such as  
388 consolidating applications/certifications across all Child Nutrition Programs (and SNAP) to  
389 ensure children have continuous access to all eligible nutrition assistance programs and to reduce  
390 the burden of a separate application process for each program. Frameworks should also guide  
391 outcome evaluations of Child Nutrition Programs to ensure *equity of impact*, and existing tools  
392 such as the Racial Equity Scorecard should be considered.<sup>53</sup> Additionally, as these policies are  
393 implemented and evaluated within differing contexts and populations, these theories can be used  
394 to develop appropriate evaluation measures to assess nutrition equity as well as potential  
395 unintended consequences. Theory also highlights the complexity of health inequities and food  
396 insecurity; moving forward, other theories such as the Nutrition Equity Framework, should also  
397 be considered to assess the broader structures and processes that are driving the inequities  
398 observed in the United States.<sup>13</sup>

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Figure 1. Using Theories to Inform the National School Lunch Program (NSLP) and School Breakfast Program (SBP)<sup>21,22</sup>

| NSLP and SBP Policies                           | Theories   |   |  | Policy/Research Considerations   |
|---|--|---|--|--|
|   | Getting to Equity Framework  | Family Ecological Model   | Stigma and Food Inequity Framework   |  |
| Universal Free School Meals (UFSM) <sup>a</sup> | <p><u>Social and Economic Resources:</u> UFSM as part of a nutrition assistance program (NSLP/SBP)</p> <p><u>Increase Access to Healthy Options:</u> UFSM provides healthy meals to children, especially those living in food swamps and food deserts</p> <p><u>Reduce Deterrents:</u> (1) Students who consume healthier meals through UFSM may be less likely to consume unhealthy foods after school, which may especially benefit children in communities often targeted by unhealthy food marketing/ outlets (e.g., fast food) (2) UFSM removes policies that create challenges for families to complete school meal applications</p> | <p><u>Media and Policy Factors:</u> UFSM as part of a nutrition assistance program (NSLP/SBP)</p> <p><u>Community Factors:</u> UFSM increases the availability of healthy foods for students</p> <p><u>Social Disparities and Chronic Stress:</u> UFSM alleviates household economic stress and reduces food insecurity</p>                                 | <p><u>Anticipated Stigma:</u> Providing UFSM no longer identifies students from lower-income households</p> <p><u>Structural Manifestation of Stigma:</u><br/>(1) Students who consume healthier meals through UFSM may be less likely to consume unhealthy foods after school, which may especially benefit children in communities often targeted by unhealthy food marketing/outlets (e.g., fast food)<br/>(2) UFSM removes policies that create challenges for families to complete school meal applications</p> | <p>(1) Research examining the impact of UFSM on students who are <i>near</i> eligible for free or reduced-priced meals</p> <p>(2) Consideration of alternative measures/data sources to allocate educational funding to schools in an equitable manner (an unintended consequence of no longer collecting free/reduced priced meal applications with a UFSM policy), such as income data from Medicaid</p> <p>(3) Greater consideration of opportunities to build community capacity/ engagement, family knowledge, and social norms (e.g., innovative involvement of parents while recognizing their limited time and bandwidth)</p> <p>(4) More research examining the equity of</p> |
| Breakfast in the Classroom (BIC)                | <p><u>Reduce Deterrents:</u> Students will no longer need to arrive early to school to receive a school breakfast (e.g., children in rural communities traveling longer distances to school)</p> <p><u>Increase Access to Healthy Options:</u> BIC provides healthy breakfasts to children, especially those living in food swamps and food deserts</p>  | <p><u>Media and Policy Factors:</u> BIC as part of a nutrition assistance program (SBP)</p> <p><u>Community Factors:</u> BIC provides healthy breakfasts to children, especially those living in food swamps and food deserts</p> <p><u>Social Disparities and Chronic Stress:</u> BIC alleviates household economic stress and reduces food insecurity</p> | <p><u>Structural Manifestation of Stigma:</u> BIC mitigates structural inequities in the way students participate in SBP (e.g., needing to arrive early)</p> <p><u>Anticipated Stigma:</u> Providing BIC no longer identifies students from lower-income households (vs school breakfast before the bell consumed primarily among students who are eligible for free/reduced price meals)</p>  | <p>(3) Greater consideration of opportunities to build community capacity/ engagement, family knowledge, and social norms (e.g., innovative involvement of parents while recognizing their limited time and bandwidth)</p> <p>(4) More research examining the equity of</p>  |

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| Minimum Lunch Period Lengths   | <u>Reduce Deterrents:</u> Students, especially those in schools with a greater number of students receiving free/reduced price meals, will have sufficient time to consume school meals  | <u>Community Factors:</u> Longer lunches increases access via sufficient time to consume healthy foods   | <u>Structural Manifestation of Stigma:</u> Longer lunches mitigates structural inequities in student having sufficient time to eat between children who receive school lunches compared with those who bring lunch from home   | impact of breakfast in the classroom policies<br>(5) Consideration of local, state, and federal policies mandating minimum lunch period lengths (e.g., 25-30 minutes) |
| Grants for equipment, infrastructure, and training opportunities for cafeteria employees | <u>Social and Economic Resource:</u> Policies that allocate more funds for equipment and infrastructure to schools in historically marginalized communities (e.g., lower-income communities and communities of color) can help address inequities in access to healthier school meals<br><br><u>Increase Access to Healthy Options:</u> Improvements in equipment and infrastructure can support schools' ability to serve healthier meals to students | <u>Family History:</u> Improved equipment, infrastructure and trainings can help to provide culturally preferred meals<br><br><u>Family Knowledge and Social Norms:</u> Trainings for cafeteria staff can lead to increases in nutrition knowledge and self-efficacy regarding the preparation of healthier foods, which can be particularly beneficial to cafeteria workers who also are from historically marginalized communities | <u>Structural Manifestation of Stigma:</u><br>(1) Greater allocation of funds for equipment and infrastructure to schools in historically marginalized communities can help address structural inequities in existing school kitchen environments<br>(2) Training opportunities for cafeteria staff can help to partially overcome the differential ability of schools to have meals reviewed by a nutritionist<br><br><u>Stigma Among Perceivers:</u> Training opportunities for cafeteria staff can also help to partially overcome decisions on which foods to serve that may perpetuate nutrition inequities | (5) Consideration of state and federal grants with greater allocations of funds for historically marginalized communities   |

<sup>a</sup>Temporary policy implemented as a result of the COVID-19 pandemic

Figure 2. Using Theories to Inform Summer Feeding Programs <sup>41,42</sup>

| Summer Feeding Program Policies                        | Theories   |  |  | Policy/Research Considerations  |
|--|--|--|--|---|
|  | Getting to Equity Framework  | Family Ecological Model  | Stigma and Food Inequity Framework   |   |
| Non-Congregate Meal Service <sup>a</sup>               | <p><u>Increase Access to Healthy Options:</u> Non-congregate meal service enables more delivery methods for healthy meals to children, especially those living in food swamps and food deserts</p> <p><u>Reduce Deterrents:</u> Non-congregate meal service removes policies that create challenges for children to attend summer meal sites</p> | <p><u>Community Factors:</u> Non-congregate meal service increases the availability of summer meals for students</p> <p><u>Social Disparities and Chronic Stress:</u> Non-congregate meal service alleviates household economic stress and reduces food insecurity</p> | <p><u>Anticipated Stigma:</u> Non-congregate meal service reduces the ability to identify students from lower-income households</p> <p><u>Structural Manifestation of Stigma:</u> Non-congregate meal service removes policies that create challenges for children to attend summer meal sites</p> | <p>(1) More research examining the best methods to distribute foods (including method of delivery and total number of meals provided at a time) to increase participation and equity of impact</p> <p>(2) Research examining the impact on food security and household outcomes (e.g., reducing chronic disruption of family routines and improving household resource shortfalls, and parent sense of control and mental health)</p> |
| Multiple Meals Provided at a Time <sup>a</sup>         | <p><u>Reduce Deterrents:</u> Students, especially with more limited access to transportation or in rural communities, can go less frequently to sites to obtain meals (compared with traditional meal programs that only provide one meal at a time)</p>   | <p><u>Social Disparities and Chronic Stress:</u> Providing multiple meals alleviate disparities in the ability (and stress associated with logistics) to travel to a Summer Feeding Program site for every meal</p>  | <p><u>Structural Manifestation of Stigma:</u> Providing multiple meals addresses structural inequities in the way students participate in the summer meal programs (e.g., no longer needing to travel to sites for every meal)</p>   | <p>(3) Consideration of strategic partnerships with local farmers markets to integrate more fresh produce</p> <p>(4) Policies that ensure communication materials that promote healthy equity in images and framing and are in languages commonly spoken in the local community</p>   |
| Eliminating Area Eligibility Requirements <sup>a</sup> | <p><u>Increase Access to Healthy Options:</u> Eliminating area eligibility requirements enables access to healthy meals to children from lower-income households who live in areas with more wealth via local sites</p> <p><u>Reduce Deterrents:</u> Eliminating area eligibility requirements removes policies that create</p>                  | <p><u>Community Factors:</u> Eliminating area eligibility requirements increases the availability of summer meals for students</p>   | <p><u>Structural Manifestation of Stigma:</u> Eliminating area eligibility requirements removes policies that create challenges for children to attend summer meal sites</p>   | <p>(5) Development of local summer wellness policies that include diverse stakeholders, including decision makers (e.g., those responsible for determining sites, hours of operation, foods offered, and communication materials/ strategies) and community members (e.g., parents and youth) to</p>  |



|                      |   |  |  |  |
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|                      | challenges for children from lower-income households to receive summer meals  |  |  | ensure equitable access and impact of Summer Feeding Programs and to meet the needs of different communities   |
| P-EBT <sup>a,b</sup> | <u>Increase Access to Healthy Options:</u> P-EBT improves flexibility to purchase healthy, culturally preferred foods | <u>Social Disparities and Chronic Stress:</u> P-EBT alleviates household economic stress and reduces food insecurity | <u>Anticipated Stigma:</u> P-EBT reduces the ability to identify students from lower-income households | (6) Examining the impact of P-EBT on child and household food insecurity and diet during summer months and consideration of policies to issue P-EBT benefits during all out of school time (e.g., summer, holidays, and school closures) |

<sup>a</sup>Temporary policy implemented as a result of the COVID-19 pandemic

<sup>b</sup>P-EBT = Pandemic Electronic Benefit Transfer

Figure 3. Using Theories to Inform the Child and Adult Care Food Program (CACFP)<sup>50</sup>

| Child and Adult Care Food Program Policies                                 | Theories   |  |   | Policy/Research Considerations   |
|--|--|--|---|--|
|  | Getting to Equity Framework  | Family Ecological Model  | Stigma and Food Inequity Framework  |  |
| Expanded Eligibility <sup>a,b</sup>  | <p><u>Social and Economic Resources</u>: Expanded eligibility as part of a nutrition assistance program (CACFP)</p> <p><u>Increase Access to Healthy Options</u>: Expanded eligibility provides healthy meals to more young adults, especially those living at homeless and youth-serving shelters</p> | <p><u>Community Factors</u>: Expanded eligibility increases access to healthy foods</p> <p><u>Social Disparities and Chronic Stress</u>: Expanded eligibility alleviates household economic stress and reduces food insecurity</p>                           | <p><u>Structural Manifestation of Stigma</u>: Expanded eligibility provides increased access to healthy foods that may mitigate structural inequities (e.g., lack of access to affordable, nutritious food) often faced by impoverished communities</p> | <p>(1) Allowing child care centers in low-income areas to automatically receive the highest CACFP reimbursement rates if at least 40% of children qualify for free or reduced-price meals</p> <p>(2) Innovative solutions for collecting data on CACFP participants (e.g., partnerships with state programs offices [WIC or transitional assistance departments]) and actions at the federal level to upgrade state data systems for participation in federal programs to facilitate the ability to link data</p> <p>(3) Research that examines comprehensive, long term follow-up on child, parent, and family outcomes</p> |
| Increased Reimbursement <sup>a</sup>                                       | <p><u>Build Community Capacity</u>: Increased reimbursement improves community economic resources by supporting child care centers</p>   | <p><u>Community Factors</u>: Increased reimbursement increases access to healthy foods</p>   | <p><u>Structural Manifestation of Stigma</u>: Greater allocation of funds can help address inequities in existing childcare food environments</p>   |  |
| Providing Afternoon Snack and/or Supper to Children in Full-Day Child Care | <p><u>Increase Access to Healthy Options</u>: Providing afternoon snacks/supper provides healthy meals to children, especially those living in food swamps and food deserts</p>  | <p><u>Community Factors</u>: Providing afternoon snacks/supper increases access to healthy foods</p> <p><u>Social Disparities and Chronic Stress</u>: Providing afternoon snacks/supper alleviates household economic stress and reduces food insecurity</p> | <p><u>Structural Manifestation of Stigma</u>: Providing afternoon snack/dinner may mitigate structural inequities (e.g., lack of access to affordable, nutritious food) often faced by impoverished communities</p>                                     |  |

<sup>a</sup>Temporary policy implemented as a result of the COVID-19 pandemic that expanded CACFP eligibility to young adults up to 24 years old at homeless and youth-serving shelters