Supporting Families in Crisis: A rapid assessment methodology to address needs in low-income houses during COVID-19
Michael & Susan Dell Center for Healthy Living – Dec 4, 2020
THE BRIGHTER BITES MISSION

to create
COMMUNITIES OF HEALTH

through
FRESH FOOD
THE BRIGHTER BITES FORMULA: A NEW KIND OF FOOD CO-OP

Produce Distribution (20-25 lbs/week) + Nutrition Education (school & home) + Fun Food Experience (recipe tasting)

All three done weekly for 16 weeks during academic year in schools where >75% children are enrolled in the F/R lunch program or Title 1; 8 week summer program

Program is free to schools & families

*Fill the Plate*
Bring fresh produce to where kids already are.

*Educate*
Teach kids and families healthy ways to use the food.

*Make it Great*
Create a fun food experience for everyone involved.

Measure Outcomes to Determine Impact
SINCE 2012, BRIGHTER BITES

has provided over **40 million pounds** of produce and **millions** of nutrition education pieces

to **475,000+ individuals** (representing ~100,000 cumulative families)

at over **275 schools and camps** across Houston, Dallas, Austin, New York City, the Washington D.C. metro area, and Southwest Florida.
THEORETICALLY-GROUNDED AND EVIDENCE-BASED

• **Community-Academic partnership**: UTHHealth School of Public Health is an academic/research partners for Brighter Bites.

• **Conduct research** to determine program effectiveness on behavioral and health outcomes

• Brighter Bites **tracks KPIs** to measure the program’s dosage, reach, fidelity, and acceptability in real-time across all sites.

• **Program evaluation** to longitudinally track behavioral outcomes (child and parent fruit and vegetable intake, home nutrition environment, school nutrition environment), and qualitative data to determine program impact.
THE DATA

As compared to those in the comparison schools, families participating in Brighter Bites reported:

• two-fold increase in cooking meals from scratch, and a significant increase in eating meals together and serving more produce as part of those meals
• two-fold increase in using nutrition labels to guide grocery purchases
• and a significant decrease in added sugars consumed among children
• 2-year follow up showed sustained consumption of the fruits and vegetables among families.
• Consumed more fruits and vegetables served at school lunches, according to a 2017-2018 plate waste study
Brighter Bites made me cook things I wouldn’t have bought for fear of wasting money if my children didn’t like it. 4,5

- Brighter Bites Parent
BRIGHTER BITES COVID-19 RAPID RESPONSE SURVEY

• School closures abruptly ended Brighter Bites traditional programming.
• Important to reach families, identify needs, and provide resources.
COVID-19 RAPID RESPONSE SURVEY – APRIL 2020


*students or post-doc fellows
PREVALENCE OF FOOD INSECURITY

Prevalence of food insecurity and very low food security, 2001–2019

Percent of U.S. households

Food insecurity
(including low and very low food security)

Very low food security

PREVALENCE OF FOOD INSECURITY

U.S. households with children by food security status of adults and children, 2019

- Food-secure households—86.4%
- Food-insecure households—13.6%
  - Food-insecure adults only—7.1%
  - Food-insecure children and adults—6.5%
  - Low food security among children—5.9%
  - Very low food security among children—0.6%

COVID-19 RAPID RESPONSE SURVEY
(April-May 2020; n=1048 Brighter Bites families)

- Food Insecurity: 71.5%
- Eat food from any restaurants in the last 7 days (Never): 93.5%*
- Shop at a large chain grocery store 1+ time per week:
  - Fall 2019: 52.2%
  - April 2020: 48.8%*
Due to the coronavirus, are you concerned about any of the following in regards to you and your family? (check all that apply) % Yes

- Financial stability: 76.27%
- My employment status will change: 42.46%
- Availability of food: 69.36%
- Affordability of food: 49.47%
- Availability and/or affordability of: 31.03%
- Access to reliable transportation: 6.44%
- Access to child care: 8.17%
- Access to your clinic/doctor: 35.93%
- Poor/Fair health status: 25%

(Sharma et al., under review)
Thematic analysis of qualitative data:
Families in crisis (n=132; 13%)

<table>
<thead>
<tr>
<th>Themes</th>
<th>Example Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear of contracting COVID19</td>
<td>“My daughter was diagnosed with coronavirus and I am very scared for all the members of my family.”</td>
</tr>
<tr>
<td></td>
<td>“We are worried that my husband does not have a job and we do not know how we will be able to buy food, pay the mortgage, electricity, water, the internet, what will happen to our future, we are very afraid, regarding the virus, of taking our children to the doctor, to the dentist, etc.”</td>
</tr>
</tbody>
</table>

   [https://doi.org/10.1371/journal.pone.0240009](https://doi.org/10.1371/journal.pone.0240009)
<table>
<thead>
<tr>
<th>Disruption of employment status</th>
<th>“I was left without work, and I don't have for supplies, or bills, or food.”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“I'm very worried because I haven't had work for three weeks and I don't have money to pay rent, electricity, or water. My work has been reduced by 90%, I'm an assistant housecleaner.”</td>
</tr>
<tr>
<td>Financial Hardship</td>
<td>“My biggest worry is not being able to pay next month's rent and not knowing where to go.”</td>
</tr>
<tr>
<td>-------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>“Not having food for my children and frustration because I don't know what I'm going to do to pay rent. Thanks to you I have had some food. Thank you very much. May God give you more to continue helping. God bless you.”</td>
</tr>
<tr>
<td></td>
<td>“I have a water bill of $ 2141.79 and it will be cut off the 13th of this month. I'm in panic of being left without water.”</td>
</tr>
<tr>
<td></td>
<td>“I am worried about not being able to pay my rent next month (May_2020) because we are out of work.”</td>
</tr>
</tbody>
</table>
**Families in crisis (n=132)**

<table>
<thead>
<tr>
<th>Exacerbated Food Insecurity</th>
<th>“I don't have enough food for my children.”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“I am worried about how to feed the children because there is no work right now, I am worried about paying my debts”</td>
</tr>
<tr>
<td></td>
<td>“My biggest worry at the moment is food for my family.”</td>
</tr>
</tbody>
</table>
### Sociodemographics of families in crisis:

<table>
<thead>
<tr>
<th>Cities</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Houston</td>
<td>54</td>
<td>76.06</td>
</tr>
<tr>
<td>• Dallas</td>
<td>6</td>
<td>8.45</td>
</tr>
<tr>
<td>• Washington DC</td>
<td>7</td>
<td>9.86</td>
</tr>
<tr>
<td>• SW Florida</td>
<td>4</td>
<td>5.63</td>
</tr>
<tr>
<td><strong>Does your family use the following?</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• WIC</td>
<td>21</td>
<td>30.00</td>
</tr>
<tr>
<td>• SNAP</td>
<td>19</td>
<td>27.14</td>
</tr>
<tr>
<td>• Double Dollars</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>• Medicaid/Texas Health Steps</td>
<td>35</td>
<td>50.00</td>
</tr>
<tr>
<td>• Medicare</td>
<td>5</td>
<td>7.14</td>
</tr>
<tr>
<td>• Free/Reduced meals</td>
<td>57</td>
<td>80.28</td>
</tr>
<tr>
<td>• CHIP</td>
<td>9</td>
<td>12.86</td>
</tr>
<tr>
<td><strong>Child Race</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Black or African American</td>
<td>5</td>
<td>7.14</td>
</tr>
<tr>
<td>• Mexican-American, Latino or Hispanic</td>
<td>59</td>
<td>84.29</td>
</tr>
<tr>
<td>• White</td>
<td>2</td>
<td>2.86</td>
</tr>
<tr>
<td>• Other</td>
<td>4</td>
<td>5.71</td>
</tr>
</tbody>
</table>

### Health Status and Social needs

<table>
<thead>
<tr>
<th>Food insecurity due to coronavirus</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Food secure</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>• Food insecure</td>
<td>71</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**Due to the coronavirus, are you concerned about any of the following in regards to you and your family? (check all that apply)**

<table>
<thead>
<tr>
<th>Concern</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Financial stability</td>
<td>60</td>
<td>84.51</td>
</tr>
<tr>
<td>• My employment status will change in the near future</td>
<td>32</td>
<td>45.07</td>
</tr>
<tr>
<td>• Availability of food</td>
<td>58</td>
<td>81.69</td>
</tr>
<tr>
<td>• Affordability of food</td>
<td>46</td>
<td>64.79</td>
</tr>
<tr>
<td>• Availability and/or affordability of housing</td>
<td>36</td>
<td>50.70</td>
</tr>
<tr>
<td>• Access to reliable transportation</td>
<td>8</td>
<td>11.27</td>
</tr>
<tr>
<td>• Access to child care</td>
<td>9</td>
<td>12.68</td>
</tr>
<tr>
<td>• Access to your clinic/doctor</td>
<td>25</td>
<td>35.21</td>
</tr>
</tbody>
</table>

**How would you rate your current health status?**

<table>
<thead>
<tr>
<th>Rate</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Poor</td>
<td>12</td>
<td>16.90</td>
</tr>
<tr>
<td>• Fair</td>
<td>23</td>
<td>32.39</td>
</tr>
<tr>
<td>• Good</td>
<td>20</td>
<td>28.17</td>
</tr>
<tr>
<td>• Very good</td>
<td>8</td>
<td>11.27</td>
</tr>
<tr>
<td>• Excellent</td>
<td>8</td>
<td>11.27</td>
</tr>
</tbody>
</table>
Using Rapid Epidemiological Assessment for food insecurity

• Rapid epidemiological assessment (REA) refers to post-disaster assessment methods that attempt to accurately assess a population by using the fewest resources in the shortest time.
• These measures have included surveys, door-to-door assessments, surveillance methods, and screening and individual risk assessment using qualitative and quantitative methods.
• The application of a rapid assessment could extend to identifying social determinants of health needs during a disaster such as food insecurity.
• This is particularly important to COVID-19, given that reducing risk of COVID-19 complications is related to maintaining optimal immune function and health, all of which are linked to these social determinants of health.

BRIGHTER BITES COVID-19 EMERGENCY ASSISTANCE PROTOCOL

1. Quantitative and qualitative analysis of rapid response survey
2. Triage to identify high risk families
3. Set up tracking database for high risk families
4. Follow up phone calls with high risk families to elaborate on concerns.
5. Articulate and deploy a response to the need
6. Document response in tracking database
7. Follow up with families to determine status
COVID-19 PIVOT – EMERGENCY ASSISTANCE TRIAGE

• Criteria for triage of “high risk” families:
  o responded as being of “poor” health status on the rapid response survey; or
  o indicated in the open-ended question “Please share your greatest concern at this time, or any other thoughts you would like to share with us” the following:
    a) Running out of food
    b) diagnosed with COVID-19 and/or living with someone who has been diagnosed with COVID-19, experiencing challenges,
    c) is ill and needs assistance,
    d) is about to lose their place of living,
    e) is about to lose their utilities, or
    f) no one at home is making an income.

• If they met any of these categories, they were classified as “high risk.”
COVID-19 PIVOT – EMERGENCY ASSISTANCE RESPONSE

• Framework for addressing the urgent needs of “high risk” families:
  o Following the triage, a centralized group of Brighter Bites staff and a student volunteer were trained to make follow up phone calls to each high-risk family and obtain more details regarding their immediate concerns and assistance needed.
  o Materials and resources used:
    a) Set-up of Google Voice for every caller.
    b) English/Spanish call and text scripts
    c) Email template for delivery of gift card and additional local family resources
COVID-19 PIVOT – EMERGENCY ASSISTANCE RESPONSE

• Tracking database was created, in which all phone calls and family responses were tracked for each family.
  o This information was then relayed back to the Brighter Bites leadership where a tailored response was generated for each family.
  o Responses ranged from:
    a) Providing immediate financial relief in the form of gift cards to local retail stores.
    b) Grocery drop off to families unable to leave home.
    c) Providing area-specific resources via text, email and phone regarding Brighter Bites community food distributions; financial assistance; accurate information regarding eviction freezes; COVID-19 testing sites near their homes; participation in government assistance programs and other requested information.
COVID-19 PIVOT – EMERGENCY ASSISTANCE RESPONSE

• 132 families have been supported through this grocery assistance initiative since the start of the COVID-19 pandemic.

“Thank you very much I am about to be evicted from my apartment and I am very stressed this help is a great relief for me”
COVID-19 PIVOT – PRODUCE VOUCHERS

- $25 produce vouchers were sent bi-weekly to more than 15,000 Brighter Bites households for fruit and vegetable purchases at partner grocery chains over 2-3 months.
  - Austin and Houston - Partnership with H-E-B stores, including H-E-B, Joe V’s, Mi Tienda, and Central Market.
  - Southwest Florida (Collier County) – Partnership with Winn Dixie in Immokalee and Naples
  - Dallas – Partnership with 99 Cent stores
  - Washington D.C. and Houston – Walmart partnership
COVID-19 PIVOT – PRODUCE VOUCHERS

69% redemption rate of vouchers among participating families
PROGRAM PARTNERS
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