

BREAKFAST AFTER THE BELL: A NUTRITION-BASED SOLUTION TO IMPROVING  
EDUCATION ACCESS & QUALITY IN CLEVELAND COUNTY SCHOOLS

By

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## **ABSTRACT**

Anna Feld, Amanda Fitterer, Sarah Johnson, Kim Ragan: **BREAKFAST AFTER THE BELL:  
A NUTRITION-BASED SOLUTION TO IMPROVING EDUCATION ACCESS &  
QUALITY IN CLEVELAND COUNTY SCHOOLS**

(Under the direction of Aimee McHale and Emma Tzioumis)

This proposal describes a school nutrition program that will improve education access and quality by addressing chronic absenteeism for the secondary students at Cleveland County Schools (CCS). Chronic absenteeism or missing more than 10% of school days, is linked to poor academic performance and serious health issues that persist into adulthood. Nationally, rural schools, like those in Cleveland County, have higher absence rates compared to suburban schools. Breakfast After the Bell (BAB) is an evidence-based program proven to improve school attendance and provides school breakfast through three different, school-dependent models. This program would incorporate an interdisciplinary approach between CCS and the Cleveland County Public Health Department (CCPHD), while focusing on primary stakeholders like students and families. Addressing nutrition and school attendance will result in improved school attendance, graduation rates, educational attainment, and health outcomes.

*Keywords:* North Carolina, Cleveland County, secondary schools, social determinants of health, education access and quality, chronic absenteeism, nutrition, school meal programs.

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## LIST OF ABBREVIATIONS

BAB	Breakfast After the Bell
CCPHD	Cleveland County Public Health Department
CCS	Cleveland County Schools
CEP	Community Eligibility Provision
FRAC	Food and Research Action Center
FRP	Free and reduced-price
MOU	Memorandum of Understanding
NC	North Carolina
SDoH	Social Determinants of Health
SHAC	School Health Advisory Council
SLT	School Leadership Team
USDA	United States Department of Agriculture

## **COMMON PROPOSAL**

### **Problem Statement and Goals**

Education access and quality is an important Social Determinant of Health (SDoH) that has important long-term effects on health and well-being, and individuals “with higher levels of education are more likely to be healthier and live longer” (United States Department of Health and Human Services, n.d.). A key aspect of this SDoH is attendance in school, which is related to physical, mental, and social health (Robert Woods Johnson Foundation (RWJF), 2016). Chronic absenteeism, defined as being absent from school 10% or more of the school days during the year is linked with serious health issues into adulthood such as diabetes, obesity, and premature death (RWJF, 2016).

Cleveland County had a 14.34% chronic absenteeism rate (2091 students) across all schools in 2018, compared to the North Carolina (NC) rate of 14.6% (Osborne Urquhart, 2019). Of particular interest are secondary school students (grades 6-12) given that chronic absenteeism in the United States sharply increases between middle and high school, demonstrated by a chronic absence rate of 14% for middle school students and over 20% for high school students (United States Department of Education, 2016). In NC Hispanic students and Black students have chronic absence rates of 18.2% and 16.3%, respectively, compared to 14.1% for white students (Osborne Urquhart, 2019). Data is not available at the county level for rates of absenteeism by grade level or race and ethnicity, but it is reasonable to expect that it would be similar to the state and national level data. Furthermore, research shows that students living in poverty are more likely to be absent from school than those from higher-income families (Allison et al, 2019). Students from food secure households are 57% less likely to be absent than those who are food insecure (Tamiru & Belachew, 2017). In Cleveland County, 57.57% of students are eligible for free and reduced-price (FRP) meals and 17% of people in the county are affected by food insecurity (Cleveland County Department of Health, 2020).



Given the strong associations between school absenteeism and health outcomes, efforts aimed at minimizing school absences will have positive influences in both the short- and long-term. Food insecurity negatively influences, and consumption of a healthful diet positively influences school attendance (Centers for Disease Control and Prevention, 2021). As such, addressing these factors will result in improved school attendance, graduation rates, educational attainment, and health outcomes.

### **Policy and Programmatic Changes**

The Breakfast After the Bell (BAB) program in Cleveland County secondary schools should be expanded. Students who participate in school meals are less likely to be deficient in essential nutrients, and low-income students who eat both breakfast and lunch at school have significantly better diet quality overall than those who do not (Guardia, Charlot & Perez, 2017). BAB has been demonstrated to reduce chronic absenteeism, especially among high school students (Kirksey & Gottfreid, 2021). The 2016-17 NC School Breakfast report attributes increased participation in the School Breakfast Program to two strategies: offering free meals to all students through the community eligibility provision (CEP) and implementing BAB programs (*NC School Breakfast Report 2018*). Rutherford County, one of Cleveland County's peer counties, is in the top ten school districts for the ratio of FRP school breakfast to lunch participation, with a ratio of 81.6 (*NC School Breakfast Report 2018*). The higher the ratio is, the narrower the "breakfast gap," which means more of the breakfast need is being met. Since Rutherford County is such a high-performing county and has implemented innovative breakfast models, it is feasible that its peer county, Cleveland County, could have success with this model as well. The three BAB models are breakfast in the classroom, grab and go, and second chance breakfast. The United States Department of Agriculture (USDA) has developed a tool (Appendix 1.1) that describes various breakfast models and can help schools determine which model is the best fit for their specific needs (USDA, n.d.).

## **Stakeholder Analysis**

Implementing this program in Cleveland County Schools (CCS) will require the targeted engagement of a diverse group of stakeholders. First, the STE(E)P Scan (Table 1.1) helped identify stakeholders from different social, technical, economic, environmental, and political contexts in and around Cleveland County to address an innovative breakfast model in the school system. The power analysis grid (Table 1.2) then helped delineate each stakeholder's interest in, power over, and influence on the implementation of the BAB program.

Stakeholders for this program fall into five categories: those who will directly benefit from BAB, school staff members whose job responsibilities will be directly affected by the new program, school support staff, policymakers and decision makers, and members of the community with influence and interest in BAB. The primary stakeholders will be CCS secondary students and their families, as they will be impacted directly by BAB. Student and family representatives from each secondary school of varying grades, race, ethnicity, and free and reduced-price (FRP) lunch status will provide valuable insight into current attitudes and barriers surrounding consuming school breakfast. Their feedback will also be important throughout the program to assess effectiveness and to ensure sustainability.

Secondary stakeholders include individuals currently involved in health and nutrition in the school system: Jada Brown, the Director of School Nutrition, individual Cafeteria Managers, and the School Health Advisory Council, led by Tamara Goforth. Other school officials to be engaged both initially and throughout the program will include the School Leadership Team (SLT), a group at each school who lead school-based programs that enhance student achievement. Stakeholders who will help drive decision-making for the program will include the Cleveland County Commissioners, school administrators, the Board of Education, and the Schools Superintendent, Dr. Stephen Fisher. Other stakeholders to engage are school nurses, school facilities employees, and community partners like local primary care providers.

## **Budget**

Expansion of the BAB program in the CCS district will have a budget of \$500,000, funded primarily by grants from organizations such as the Carolina Hunger Initiative, School Nutrition Foundation, Whole Kids Foundation, The Dairy Alliance, and Salad Bars to Schools (No Kid Hungry NC, 2021). Funds will be used to purchase equipment, supplies, and food, and to hire the necessary staff to purchase, prepare, and deliver the food, and to clean up after breakfast is served. The cost of food for this program will be covered by federal funds through the CEP. A table of projected costs is found in Appendix 1.5.

## **Engagement and Accountability Plan**

Cleveland County Public Health Department (CCPHD) consultants will work collaboratively with school officials to implement BAB in CCS secondary schools. All stakeholders will be invited to an initial networking session to solicit their participation and acknowledge the assets that they each bring that can help CCPHD and CCS implement a successful BAB program. The goals of the session will be to inform stakeholders of the rationale of the project, what decisions have already been made, why, how, and by whom, the data and analyses that have shaped the understanding of the issues and strategies, identify common language and key jargon, outline the challenges the initiative faces, and introduce the proposed timeline. CCPHD must work to establish trust and share power so that the community members have a sense of self-determination (Leading Inside Out & the Collective Impact Forum, 2017).

An engagement plan (Table 1.4) identifies the various communication mediums, tools, and technology used to keep engaged with our stakeholders depending on the stakeholder's interests, influences, and power. Interactions vary from monthly in-person meetings to provide information about progress towards metrics and decisions made, to individual interviews, focus groups, quarterly updates, social media posts, and bi-annual newsletters.

A memorandum of understanding (MOU) (Appendix 1.2) between CCS and CCPHD will be developed to communicate the mutual goals and responsibilities of each organization in

establishing the Breakfast After the Bell program. The school district will serve as the backbone agency responsible for the implementation of the program. The health department will agree to support and promote the program.

### **Program/Policy Evaluation**

Success of this program will be measured by both short-term outcomes and long-term impacts. In the short term (within 2 years), outcome measures will include the number of secondary schools that implement BAB by start of 2023-2024 school year and the net change in the Healthy Eating Index score (diet quality) among secondary school students in Cleveland County. In the long term (5-10 years), impact measures will include the breakfast gap, which is the difference between the number of FRP lunches and breakfasts served, and the prevalence of marginal food insecurity, defined as at least one affirmative answer on the 18-item Household Food Security Scale (Appendix 1.3) (Bartfield & Ahn, 2011).

Narrowing the breakfast gap will be crucial to enabling this program to be a vehicle to improve overall diet quality and decrease marginal food insecurity. A benchmark of success in closing the gap will be having 70% of students who participate in school lunch also participating in school breakfast, aligning with the Food and Research Action Center (FRAC) goal (Philbin, n.d.). The local school food service personnel at each school will keep meal service records as required for participation in federal school meals programs (USDA, 2017). The County Director of School Nutrition Services will pool this data monthly to calculate the percentage of students who eat school lunch that also eat school breakfast. Improvement of 0.125% each month is needed since the county's ratio is currently 57.54% (No Kid Hungry NC, 2021). If adequate progress is not being met, additional strategies to promote participation can be employed such as contests, challenges, posters, special guests, and taste tests (No Kid Hungry, 2022).

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**APPENDIX A: COMMON PROPOSAL FIGURES, TABLES, AND APPENDICES**

**TABLE 1.1: STE(E)P SCAN FOR STAKEHOLDER IDENTIFICATION**

<p><b>Social</b></p> <ul style="list-style-type: none"> <li>• Parents (different genders, ages, races)</li> <li>• Students (different genders, ages, races)</li> <li>• District-level school leaders</li> <li>• School-level administrators</li> <li>• Teachers</li> <li>• School Nurse</li> <li>• School Resource Officer</li> </ul>	<p><b>Technical</b></p> <ul style="list-style-type: none"> <li>• Director of School Nutrition</li> <li>• Cafeteria Manager</li> <li>• Cleveland County Schools Custodial Manager</li> <li>• School-level Lead Custodian</li> <li>• Cafeteria Worker</li> <li>• School Nutrition Director from a peer county who has implemented Breakfast After the Bell in their district</li> </ul>
<p><b>Economic (Environmental)</b></p> <ul style="list-style-type: none"> <li>• Local food distributors</li> <li>• County Commissioners for funding and resource allocation</li> <li>• Cleveland County Health Department</li> <li>• Local business owner</li> </ul>	<p><b>Political</b></p> <ul style="list-style-type: none"> <li>• Board of Education</li> <li>• NC Department of Public Instruction</li> <li>• Federal School Food Program regulations</li> <li>• Local medical provider</li> <li>• Cleveland County Commissioner</li> </ul>

**TABLE 1.2: STAKEHOLDER IMPACT/POWER ANALYSIS**

Stakeholder Role	Stakeholder(s)	Key Interests	Power / Influence on Project	Importance to Program
<b>Key Stakeholders</b>				
Cleveland County Commissioners	Chair, Kevin Gordon Vice Chairman, Deb Hardin Commissioners Johnny Hutchins, Ronnie Whetstine, Doug Bridges	<ul style="list-style-type: none"> <li>Deciding on program/policy to implement to improve health of Cleveland County</li> <li>Fiscal responsibility</li> </ul>	High. Will provide overall decision as to whether program is implemented	High
<b>Primary Stakeholders</b>				
Secondary Students	Students from Kings Mountain High, Shelby High, Crest High	<ul style="list-style-type: none"> <li>Boosting academic achievement</li> <li>Nutrition programs designed for their participation</li> </ul>	High. Students should provide key testimony to identify current barriers and interest in BAB program	High. As the main beneficiaries, their input will be of utmost importance to the program design and implementation.
Parents / Caregivers	Secondary school parents and primary caregivers of students who participate in school food programs	<ul style="list-style-type: none"> <li>Improving nutrition and academic outcomes for their children</li> <li>Family directly affected by improved school attendance, health, and school performance</li> </ul>	High – should drive decisions surrounding program	Moderate. Can provide important anecdotal stories of how BAB will positively affect their families
<b>Secondary Stakeholders</b>				
Teachers	School Leadership Team (SLT)	<ul style="list-style-type: none"> <li>Implement school-based management to enhance student achievement</li> </ul>	Low	Moderate. Will need to be advocates of program and speak to educational aspect as well as give input during implementation as BAB will potentially affect classroom time.
School Health Advisory Council	Anita Ware, Chair	<ul style="list-style-type: none"> <li>Committed to improving nutrition in CC schools</li> </ul>	Moderate	High. Crucial advocates for program.



Cleveland County School Nutrition Services Director	Jada Brown	<ul style="list-style-type: none"> <li>• Having a new program will change her operations</li> <li>• Expanding food services will require more time/resources</li> </ul>	Moderate	High
Food Service / Cafeteria Manager	Representatives from each school	<ul style="list-style-type: none"> <li>• Having a new program will change their operations</li> <li>• Expanding food services will require more time/resources</li> </ul>	Moderate	High
Child Nutrition Supervisor (Cleveland Co Schools)	Nancy Jones, RD	<ul style="list-style-type: none"> <li>• Program goals will need to align with</li> </ul>	Moderate	Moderate
Facilities Staff	Representatives from each school	<ul style="list-style-type: none"> <li>• Interests in school grounds and increase in demand from program</li> </ul>	Low	Low. Will need to be involved during later stages of program implementation and logistic planning.
Cleveland County Health Department		<ul style="list-style-type: none"> <li>• Aligning their strategic goals with school system</li> <li>• Improving overall health of CC students will affect health of entire county</li> </ul>	Moderate	High. Invested in programs pertaining to improved public health outcomes
Rutherford County Schools Food Services Director		<ul style="list-style-type: none"> <li>• Experience in successful implementation of Breakfast after Bell programs</li> <li>• Will have insights during beginning program planning stages for CC food services director</li> </ul>	Low	Low. Will be good resource to connect to Cleveland Co food services managers to initially help to identify positives and impact of program

**TABLE 1.3: BREAKFAST AFTER THE BELL PROGRAM BUDGET**

<b>Description</b>	<b>Cost per unit</b>	<b>Number of units</b>	<b>Total Cost</b>	<b>Source</b>
Food service assistant, 1 per school, 50% FTE (Includes salary, fringe benefits, and health insurance)	\$18,077.40	12	\$216,928.80	NC Office of Human Resources, n.d.
Cleaning supplies and trash bags	\$35 per month per classroom	6000	\$210,000	American Federation of Teachers (AFT), 2017
Bags for meals	\$20 per month per school	120	\$2400	AFT, 2017
Carts on wheels, 2 per school	\$90 each	24	\$2160	AFT, 2017
Large coolers, 3 per school	\$80 each	36	\$2880	AFT, 2017
Kiosk, 1 per school	\$3000	12	\$36,000	AFT, 2017
<b>GRAND TOTAL</b>			<b>\$491,968.80</b>	

**TABLE 1.4: STAKEHOLDER ENGAGEMENT PLAN**

<b>Name of stakeholder organization, group, or individual</b>	<b>Potential role in the activity</b>	<b>Engagement strategy</b> How will you engage stakeholders in the activity?	<b>Follow-up strategy</b> Plans for feedback or continued involvement
Teachers	Essential to the success of the program since they will be providing time for the students to get and consume their food.	First, I would inform them about the intervention, then consult with them to obtain feedback or hear their issues, and then involve them in the decision-making. Work to understand any potential problems and include them in identifying options for moving forward. This will help earn buy-in and the success of the program.	Regular monthly feedback at their staff meetings to share successes and hear and address concerns.
Superintendent Fisher	Ultimately responsible for the implementation and success of the program.	Involve, collaborate, and empower  Work to understand any potential problems and include him/her in identifying options for moving forward and empower to make the final decisions.	Once the decision has been made to implement the intervention, feedback is provided during the first couple of months of implementation and then less frequently. Due to his heavy workload, quarterly updates will be provided unless unintended problems arise.
District Custodial Manager- Lisa Kelly  School-level Lead Custodian trainer, Sherry Ruffalo	Planning and implementation of the program. Knowledgeable about the supplies and personnel that are needed.	Involved in monthly planning meetings until the program is well established.	Regular feedback, advice, and recommendations are solicited at monthly meetings.
School-level administrator representative, Principal	“Boots on the ground” workers to put	Involved in monthly planning meetings until the	Regular feedback, advice, and recommendations are

<p>Dustin Moorehead</p> <p>Cafeteria Manager, representative, Jennifer Ledbetter</p>	<p>the program into action.</p>	<p>program is well established.</p>	<p>solicited at monthly meetings.</p>
<p>Board of Education representative, Dena Green</p> <p>Local Medical Director, Dr. P. Grinton</p>	<p>Influence and support</p> <p>BOE representative is a subject matter expert on implementing programs to address the needs of the school community</p> <p>Dr. Grinton is a subject matter expert on the importance of breakfast and food security.</p>	<p>Solicit program support by sharing data and analyses indicating the need for BAB, listen, and acknowledge concerns at the initial “all stakeholder” networking meeting.</p>	<p>Quarterly updates via email or in-person meetings.</p> <p>Utilize promotional activities if agreeable.</p>
<p>Parents, Students, School Health Advisory Council, representative, Tamara Goforth</p>	<p>Support and share worldviews.</p>	<p>Focus groups, parent and student Zoom or in-person discussions, public town hall meetings</p> <p>Provide gas cards for participating</p>	<p>Annual public town hall meetings, establish PTO and school websites, and social media campaigns, and post updates at least bi-annually.</p>

FIGURE 1.1: RICH PICTURE ANALYSIS



## APPENDIX 1.1: USDA BREAKFAST METHOD FACT SHEETS

### Traditional Breakfast



- Eating in a familiar setting for students who already eat school lunch prepares students for a good morning start.
- Cafeteria is already set up for large flow of students in one location.
- It requires no special transportation or packaging of foods; conducive to serving hot food options.

#### Fact Sheet

Who:	Meet with key decision makers at your school to initiate the program. Obtain approval and support from administrator, principal, teachers and food service staff. Staff at each school receives training for set-up and implementation.
What:	A traditional plated breakfast served cafeteria-style.
When:	Before school starts.
Where:	Breakfast served, like lunch, in the cafeteria.
	To increase participation in the breakfast program.
Why:	Provides a nutritious meal to students.
	Allows students to eat with siblings or friends.
How:	Students follow lunchtime flow for food pick up and seating.

Will this work for my school? Circle YES/NO after each of the following statements to determine if Traditional Breakfast will work for your school

1.	School busses arrive early enough to allow time in the cafeteria.	YES	NO
2.	Non-bussed students can arrive at school in time to participate in a cafeteria meal.	YES	NO
3.	Staff is available and willing for morning service.	YES	NO
4.	Cafeteria is available for use/not in use for other purposes before school.	YES	NO
5.	Cafeteria is centrally located for ease of service.	YES	NO
6.	Centralized ticket punching/money collection will work for breakfast.	YES	NO
7.	Teachers are likely to eat breakfast with students.	YES	NO
8.	Cafeteria is large enough to serve potential participants.	YES	NO
9.	Parents/students in this area expect hot foods for breakfast.	YES	NO

## Breakfast in the Classroom



- Breakfast in the classroom provides nutritious meals to students who do not have time to eat breakfast before school.
- Children can look forward to a good breakfast in the comfort of the familiar surroundings of their classroom.
- If the cafeteria is too small, crowded or in use, more students can eat a good breakfast when served in the classroom.

### Fact Sheet

Who:	Meet with key decision makers at your school to initiate the program. Obtain approval and support from administrator, principal, teachers and food service staff. Staff at each school receives training for set-up and implementation.
What:	A bagged breakfast or individually wrapped servings of breakfast components, served in the classroom, to offer students an opportunity to eat breakfast they may have missed.
When:	During announcements or morning break time.
Where:	Breakfast will be delivered to the classrooms in carts or picked up in the cafeteria by student representatives from each class.
Why:	To increase participation in the breakfast program. Increases speed and convenience of service. Provides a nutritious meal to students.
How:	The cart contains prepacked bags or individually wrapped, reimbursable breakfast components. Teachers record meals when served to the students.

Will this work for my school? Circle YES/NO after each of the following statements to determine if Breakfast in the Classroom will work for your school

1. School buses arrive at school just in time for school to begin.	YES	NO
2. Classrooms and the kitchen are on the same floor or have accessibility ramps.	YES	NO
3. Classroom schedules are flexible enough to incorporate breakfast into the day.	YES	NO
4. Food Service staff is willing to help with new breakfast option.	YES	NO
5. Your principal is usually open to new ideas and change.	YES	NO
6. Cafeteria is small and crowded.	YES	NO
7. There are one or more areas in the building where breakfast could be distributed.	YES	NO
8. Teachers realize the importance eating breakfast has to the learning process.	YES	NO
9. Cafeteria is centrally located for ease of service.	YES	NO

## Grab 'n' Go Breakfast



- Grab 'n' Go breakfasts are convenient. They take less time to prepare than most traditional breakfast meals and decrease long lines.
- A bagged breakfast can be enjoyed on the go, during break or during 1<sup>st</sup> period.
- Secondary students like Grab 'n' Go breakfast for opportunities to eat at different locations and times.

### Fact Sheet

Who:	Meet with key decision makers at your school to initiate the program. Obtain approval and support from administrator, principal, teachers and food service staff. Staff at each school receives training for set-up and implementation.
What:	A bagged breakfast or individually wrapped servings of breakfast components can be served before school or during a break. Students will have the choice of a fast, nutritious breakfast.
When:	Before school, during morning break or 1st period.
Where:	Position mobile carts or tables at school entrance or high traffic areas.
Why:	To increase participation in the breakfast program. Increases speed and convenience of service. Provides a nutritious meal to students.
How:	The cart/table contains prepared breakfast choices. Bags are individually wrapped reimbursable breakfast meals. Promote with Grab 'n' Go posters, especially at pick up points.

Will this work for my school? Circle YES/NO after each of the following statements to determine if Grab 'n' Go will work for your school.

1. Participation in the breakfast program is significantly lower than lunch.	YES	NO
2. Food carts are available or space exists for placement of tables in entrances for "curbside" services.	YES	NO
3. Teachers realize the importance eating breakfast has to the learning process.	YES	NO
4. Breakfast needs to be served faster and serving areas need to be more accessible.	YES	NO
5. Students already grab soft drinks and snacks from vending machines as they rush to class.	YES	NO
6. Additional labor hours are not available.	YES	NO
7. Flexibility is needed in scheduling serving times.	YES	NO
8. Meal payment system does not require cash at point of service.	YES	NO
9. Congestion in cafeteria dining room needs to be reduced.	YES	NO



## Breakfast After 1<sup>st</sup> Period



- Breakfast served following the first instructional period provides students a nutrition break.
- Students who ate little at home may be hungry again by this time.
- A mid-morning breakfast gives students a nutritious choice versus vending machine items or a non-reimbursable milk break.

### Fact Sheet

Who:	Meet with key decision makers at your school to initiate the program. Obtain approval and support from administrator, principal, teachers and food service staff. Staff at each school receives training for set-up and implementation.
What:	The nutrition break creates a way for students to eat a meal that was missed or inadequate earlier in the day.
When:	Between the first and second class period.
Where:	Use mobile carts or tables in a centrally located area where students are changing classes.
Why:	To increase participation in the breakfast program. Increases speed and convenience of service. Provides a nutritious meal to students.
How:	The meal provides a nutrition break to students as they move through the hall to their next class. The pre-packaged items need to be hand-held and easy to eat and can be served in the cafeteria or from Grab 'n Go locations.

Will this work for my school? Circle YES/NO after each of the following statements to determine if Breakfast After 1st Period will work for your school

1. There is flexible class scheduling to accommodate a breakfast break.	YES	NO
2. Class schedule was changed to have students arrive earlier than previous year.	YES	NO
3. Principal has expressed interest in providing better nutrition for students.	YES	NO
4. Students already grab soft drinks and snacks from vending machines as they rush to class.	YES	NO
5. Your principal is usually open to new ideas and change.	YES	NO
6. Cafeteria is small, crowded or in use.	YES	NO
7. There are one or more areas in the building where breakfast could be distributed.	YES	NO
8. Teachers realize the importance eating breakfast has to the learning process.	YES	NO
9. Cafeteria is centrally located for ease of service.	YES	NO

## Breakfast on the Bus



- Breakfast handed brown bag style to students as they step on the bus.
- Students that ride the bus for long periods of time have time to eat breakfast.
- Hand held breakfast can be enjoyed before arriving at school.

### Fact Sheet

<b>Who:</b>	Meet with key decision makers at your school to initiate the program. Obtain approval and support from administrator, principal, teachers and food service staff. Staff at each school receives training for set-up and implementation.
<b>What:</b>	A bagged hand-held breakfast will give students a choice for getting them the nutrition they need before school starts.
<b>When:</b>	While riding the bus to school.
<b>Where:</b>	School food service will take bins filled with bagged breakfasts to bus depot before routes begin in the morning.
<b>Why:</b>	To increase participation in the breakfast program. Increases speed and convenience of service. Provides a nutritious meal to students.
<b>How:</b>	The bagged meal provides a nutrition break to students as they enter the bus for the ride to school. The pre-packaged items need to be hand held and easy to eat. Students should be instructed to throw trash away before leaving the bus.

Will this work for my school? Circle YES/NO after each of the following statements to determine if Breakfast on the Bus will work for your school

1.	Bussing service is flexible and open to accommodating breakfast while en route to school.	YES	NO
2.	Students spend more than 15 minutes riding the bus and do not arrive in time to participate in the traditional breakfast.	YES	NO
3.	Bussing and class schedule are not flexible.	YES	NO
4.	Principal has expressed interest in providing better nutrition for students.	YES	NO
5.	Equipment and food service labor is available to prepare breakfasts for early morning pick-up.	YES	NO
6.	Trash removal procedures can be adapted to a bus serving site.	YES	NO
7.	Meal payment system does not require cash at point of service.	YES	NO
8.	Food service manager is willing to accommodate menu for pre-packaged foods.	YES	NO
9.	Parents have requested an option for their children who do not arrive at school in time for breakfast.	YES	NO

## APPENDIX 1.2: MEMORANDUM OF UNDERSTANDING

The Memorandum of Understanding (the “Memorandum”) is made on December 01, 2022, by and between Cleveland County Schools, of 400 West Marion Street, Shelby, North Carolina, 28150 (hereinafter referred to as “CCS”) and Cleveland County Public Health Department, of 200 South Post Road, Shelby North Carolina, 28150 (hereinafter referred to as “CCPHD”) for the purpose of achieving the various aims and objectives relating to the Breakfast After the Bell Program (the “Project”).

WHEREAS CCS and CCPHD desire to enter into an agreement in which School Nutrition and CCPHD will work together to complete the Project;

AND WHEREAS CCS and CCPHD are desirous to enter into a Memorandum of Understanding between them, setting out the working arrangements that each of the partners agrees are necessary to complete the Project;

AND WHEREAS CCS and CCPHD agree on the following:

### **Short-term aims:**

1. 75% of Cleveland County Schools’ middle and high schools will implement BAB at the start of the 2023-2024 school year to address the SDoH of education access and quality through improved attendance, food security, and readiness to learn.
2. Reduce the gap between the number of students who participate in the school breakfast and school lunch programs.
3. Improve Health Eating Index score (diet quality) by an average of 3 points among secondary students in Cleveland County (Bhattacharya et al, 2006).

### **Long-term aims:**

1. Improve breakfast gap-70% of Free or Reduced Price Meals-eligible students who eat school lunch will also eat school breakfast by 2030 (Philbin, n.d.).
2. Reduce marginal food insecurity by 10% over the first 10 years of the program (Bartfield & Ahn, 2011).
3. The overall aim is to decrease food insecurities, improve school attendance and graduation rates, and reduce the risk of health disparities over time.

### **Purpose**

The Partners acknowledge that no contractual relationship is created between them by this Memorandum but agree to work together in the true spirit of partnership to ensure that there is a united visible and responsive relationship of the Project and to demonstrate financial, administrative, and managerial commitment to the Project by means of the following individual services. This Memorandum will outline activities to be delivered, partner-specific responsibilities, mutual responsibilities, effective dates of agreement, terms and conditions of the agreement, assessment metrics, and evaluation methods.

### **Cooperation**

The activities and services for the Project shall include, but are not limited to:

- a. Services to be rendered by CCS include:
  - Serve as the backbone agency responsible for the BAB program.
  - Communicate with CCPHD monthly for the first year of the project to ensure alignment of goals and provide feedback.
  - Preparation and distribution of nutritious breakfast offerings after the start of the school day in compliance with the National School Breakfast Program
- b. Services to be rendered by CCPHD include:
  - Develop, print, and distribute marketing and promotional materials for the Project.
  - Communicate with CCS monthly for the first year of the project to review the effectiveness and explore opportunities for improvement and enhancement of the BAB program.

### **Resources**

The Partners will endeavor to have final approval and secure any financing necessary to fulfill their financial contributions at the start of the planning for the development of the Project.

- a. CCS hereby agrees to provide the following financial, material, and labor resources in respect to the Project:

School Nutrition Director, Jada Brown serves as Project Manager for the Project, accountable for completing and submitting all required budget and program deliverables to grant funder, provide in-kind School Nutrition staff and cafeteria facilities for preparing meals, and handle negotiations with all food and supply vendors, public relations representative will work jointly

with CCPHD public relations officer on the promotion of Project through the school website and social media accounts, and local newspaper and news outlets.

- b. CCPHD hereby agrees to provide the following financial, material, and labor resources in respect of the Project:

Marketing personnel to create print advertising and promotional materials for the Project, contract with a local printing company to produce materials, pay printing costs up to a total of \$5,000 per year, promote participation in the Breakfast After the Bell Program through the distribution of flyers in all their clinical and customer-facing departments and provide print materials for use by the schools, public relations officer will work jointly with school public relations representative on the promotion of the Project through the public health website and social media accounts.

### **Communication Strategy**

Marketing of the vision and any media or other public relations contact should always be consistent with the aims of the Project and only undertaken with the express agreement of both parties. Where it does not breach any confidentiality protocols, a spirit of open and transparent communication should be adhered to. Coordinated communications should be made with external organizations to elicit their support and further the aims of the Project.

### **Term**

The arrangements made by the Partners by this Memorandum shall remain in place from Dec. 01, 2022, until June 30, 2030. The term can be extended only by agreement of both Partners.

### **Understanding**

It is mutually agreed upon and understood by and among the Partners of this Memorandum that:

- a. Each Partner will work together in a coordinated fashion for the fulfillment of the Project.

- b. In no way does this agreement restrict involved Partners from participating in similar agreements with other public or private agencies, organizations, and individuals.
- c. This Memorandum will be effective upon the signature of both Partners.
- d. Any Partner may terminate its participation in this Memorandum by providing written notice to the other partner.
- e. Provide letters of support for any grant application Cleveland County Schools submit for sustainability funding for BAB.

The following Partners support the goals and objectives of the Breakfast After the Bell Program:

**Signatures**

This Agreement shall be signed on behalf of Cleveland County Schools by Jada Brown, School Nutrition Director, and on behalf of Cleveland County Public Health Department by Tiffany Hansen, MPA, its Public Health Director. This Agreement shall be effective as of the date written above.

By: \_\_\_\_\_ Date: \_\_\_\_\_

Cleveland County Schools  
Jada Brown, School Nutrition Director

By: \_\_\_\_\_ Date: \_\_\_\_\_

Cleveland County Public Health Department  
Tiffany Hansen, MPA, its Public Health Director

## APPENDIX 1.3: 18-ITEM HOUSEHOLD FOOD SECURITY SURVEY

*Guide to Measuring Household Food Security -- 2000*

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### U.S. HOUSEHOLD FOOD-SECURITY/HUNGER SURVEY MODULE: 3-STAGE DESIGN (2 INTERNAL SCREENERS)

**Questionnaire transition into module--administer to all households:** These next questions are about the food eaten in your household in the last 12 months, since (current month) of last year, and whether you were able to afford the food you need.

**General food sufficiency question/screener: Questions 1, 1a, 1b** (OPTIONAL: These questions are NOT used in calculating the food-security/hunger scale.) Question 1 may be used as a screener: (a) in conjunction with income as a *preliminary* screen to reduce respondent burden for *higher income households only*; and/or (b) in conjunction with the 1st-stage internal screen to make that screen "more open"--i.e., provide another route through it.

1. [IF ONE PERSON IN HOUSEHOLD, USE "I" IN PARENTHETICALS, OTHERWISE, USE "WE."]

Which of these statements best describes the food eaten in your household in the last 12 months: --enough of the kinds of food (I/we) want to eat; --enough, but not always the kinds of food (I/we) want; --sometimes not enough to eat; or, --often not enough to eat?

- [1] Enough of the kinds of food we want to eat [SKIP 1a and 1b]  
[2] Enough but not always the kinds of food we want [SKIP 1a; ask 1b]  
[3] Sometimes not enough to eat [Ask 1a; SKIP 1b]  
[4] Often not enough [Ask 1a; SKIP 1b]  
[ ] DK or Refused (SKIP 1a and 1b)

- 1a. [IF OPTION 3 OR 4 SELECTED, ASK] Here are some reasons why people don't always have enough to eat. For each one, please tell me if that is a reason why YOU don't always have enough to eat. [READ LIST. MARK ALL THAT APPLY.]

- | YES                      | NO                       | DK                       |  |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Not enough money for food                          |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Not enough time for shopping or cooking            |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Too hard to get to the store                       |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | On a diet  |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No working stove available                         |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Not able to cook or eat because of health problems |

- 1b. [IF OPTION 2 SELECTED, ASK] Here are some reasons why people don't always have the quality or variety of food they want. For each one, please tell me if that is a reason why YOU don't always have the kinds of food you want to eat. [READ LIST. MARK ALL THAT APPLY.]

- | YES                      | NO                       | DK                       |   |
|--------------------------|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Not enough money for food               |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Kinds of food (I/we) want not available |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Not enough time for shopping or cooking |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Too hard to get to the store            |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | On a special diet                       |

**BEGIN FOOD-SECURITY CORE MODULE (i.e., SCALE ITEMS)**

**Stage 1: Questions 2-6 --ask all households:**

[IF SINGLE ADULT IN HOUSEHOLD, USE "I," "MY," AND "YOU" IN PARENTHEICALS; OTHERWISE, USE "WE," "OUR," AND "YOUR HOUSEHOLD;" IF UNKNOWN OR AMBIGUOUS, USE PLURAL FORMS.]

2. Now I'm going to read you several statements that people have made about their food situation. For these statements, please tell me whether the statement was often true, sometimes true, or never true for (you/your household) in the last 12 months, that is, since last (name of current month).

The first statement is "(I/We) worried whether (my/our) food would run out before (I/we) got money to buy more." Was that often true, sometimes true, or never true for (you/your household) in the last 12 months?

- Often true
- Sometimes true
- Never true
- DK or Refused

3. "The food that (I/we) bought just didn't last, and (I/we) didn't have money to get more." Was that often, sometimes, or never true for (you/your household) in the last 12 months?

- Often true
- Sometimes true
- Never true
- DK or Refused

4. "(I/we) couldn't afford to eat balanced meals." Was that often, sometimes, or never true for (you/your household) in the last 12 months?

- Often true
- Sometimes true
- Never true
- DK or Refused

[IF CHILDREN UNDER 18 IN HOUSEHOLD, ASK Q5 - 6; OTHERWISE SKIP TO 1<sup>st</sup>-Level Screen.]

5. "(I/we) relied on only a few kinds of low-cost food to feed (my/our) child/the children) because (I was/we were) running out of money to buy food." Was that often, sometimes, or never true for (you/your household) in the last 12 months?

- Often true
- Sometimes true
- Never true
- DK or Refused



6. "(I/We) couldn't feed (my/our) child/the children) a balanced meal, because (I/we) couldn't afford that." Was that often, sometimes, or never true for (you/your household) in the last 12 months?
- Often true
  - Sometimes true
  - Never true
  - DK or Refused

**1<sup>st</sup>-level Screen (screener for Stage 2):** If AFFIRMATIVE RESPONSE to ANY ONE of Questions 2-6 (i.e., "often true" or "sometimes true") OR response [3] or [4] to Question 1 (if administered), then continue to Stage 2; otherwise, skip to end.

**Stage 2: Questions 7-11** --ask households passing the 1<sup>st</sup>-level Screen: (estimated 40% of hh's  $\leq$  185% Poverty; 5.5% of hh's > 185% Poverty; 19% of all households).

[IF CHILDREN UNDER 18 IN HOUSEHOLD, ASK Q7; OTHERWISE SKIP TO Q8]

7. "(My/Our child was/The children were) not eating enough because (I/we) just couldn't afford enough food." Was that often, sometimes, or never true for (you/your household) in the last 12 months?
- Often true
  - Sometimes true
  - Never true
  - DK or R
8. In the last 12 months, since last (name of current month), did (you/you or other adults in your household) ever cut the size of your meals or skip meals because there wasn't enough money for food?
- Yes
  - No (SKIP 8a)
  - DK or R (SKIP 8a)
- 8a. [IF YES ABOVE, ASK] How often did this happen---almost every month, some months but not every month, or in only 1 or 2 months?
- Almost every month
  - Some months but not every month
  - Only 1 or 2 months
  - DK or R

9. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money to buy food?
- Yes  
 No  
 DK or R
10. In the last 12 months, were you every hungry but didn't eat because you couldn't afford enough food?
- Yes  
 No  
 DK or R
11. In the last 12 months, did you lose weight because you didn't have enough money for food?
- Yes  
 No  
 DK or R

**2<sup>nd</sup>-level Screen** (screener for Stage 3): If AFFIRMATIVE RESPONSE to ANY ONE of Questions 7 through 11, then continue to Stage 3; otherwise, skip to end.

**Stage 3: Questions 12-16** --ask households passing the 2<sup>nd</sup>-level Screen: (estimated 7-8% of hh's < 185% Poverty; 1-1.5% of hh's > 185% Poverty; 3-4% of all hh's).

12. In the last 12 months, did (you/you or other adults in your household) ever not eat for a whole day because there wasn't enough money for food?
- Yes  
 No (SKIP 12a)  
 DK or R (SKIP 12a)
- 12a. [IF YES ABOVE, ASK] How often did this happen---almost every month, some months but not every month, or in only 1 or 2 months?
- Almost every month  
 Some months but not every month  
 Only 1 or 2 months  
 DK or R

[IF CHILDREN UNDER 18 IN HOUSEHOLD, ASK 13-16; OTHERWISE SKIP TO END.]

13. The next questions are about children living in the household who are under 18 years old. In the last 12 months, since (current month) of last year, did you ever cut the size of (your child's/any of the children's) meals because there wasn't enough money for food?

Yes  
 No  
 DK or R

14. In the last 12 months, did (CHILD'S NAME/any of the children) ever skip meals because there wasn't enough money for food?

Yes  
 No (SKIP 14a)  
 DK or R (SKIP 14a)

- 14a. [IF YES ABOVE ASK] How often did this happen---almost every month, some months but not every month, or in only 1 or 2 months?

Almost every month  
 Some months but not every month  
 Only 1 or 2 months  
 DK or R

15. In the last 12 months, (was your child/ were the children) ever hungry but you just couldn't afford more food?

Yes  
 No  
 DK or R

16. In the last 12 months, did (your child/any of the children) ever not eat for a whole day because there wasn't enough money for food?

Yes  
 No  
 DK or R

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**END OF FOOD-SECURITY/HUNGER CORE MODULE**

### User Notes

**(1) Response Options:** For interview surveys, DK (“don’t know”) and “Refused” are blind responses--that is, they are not presented as response options, but are marked if volunteered. For self-administered surveys, DK is presented as a response option.

**(2) Internal Screeners:** Two levels of internal screening are provided for survey designers who wish to reduce respondent burden for households not manifesting: (a) *any* level of food insecurity (1st-level screener); or (b) any signs of *hunger* (2nd-level screener). The optional Q1 also may be used in conjunction with the 1st-level screener to provide an additional, independent basis for passing households through the screen (i.e., making the screen somewhat less stringent).

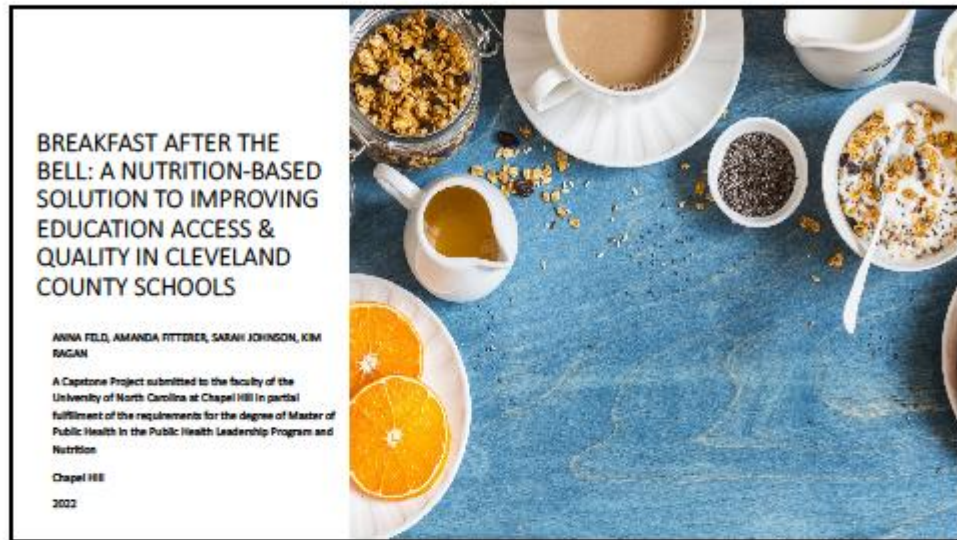
To further reduce burden for higher-income respondents, a preliminary screener may be constructed using Q1 along with a household income measure. Households with income above twice the poverty threshold, AND who respond <1> to Q1 may be skipped to the end of the module and classified as food secure. (This preliminary screen should not be used for lower-income households.) Use of this preliminary screener reduces total burden in a survey with many higher-income households, and the cost, in terms of reduced accuracy in identifying food-insecure households, is slight. Research has shown that a very small proportion of the higher-income households screened out by this procedure will register food insecurity if administered the full module. Consequently, if Q1 is not desired for research purposes, a preferred strategy is to omit Q1 and administer Stage 1 of the module to all households. Administration time for Stage 1 is very nearly the same as administration time for the preliminary USDA food sufficiency question/screener.

**(3) Time Reference Period:** The scale items may be modified from the 12-month reference period to a shorter time period if required for your research design. The CPS food-security database includes 30-day reference periods for the more severe scale items (Q8-Q18) and other surveys have used the core module with reference periods shorter than 12 months. For example, the questionnaire items may be modified from the 12-month period to the 30-day reference period by changing the “last 12-month” reference in each question to “last 30 days.” In this case, items 8a, 12a, and 14a must be changed to read as follows:

8a/12a/14a: [IF YES ABOVE, ASK] In the last 30 days, how many days did this happen?  
\_\_\_\_\_ days  
[ ] DK

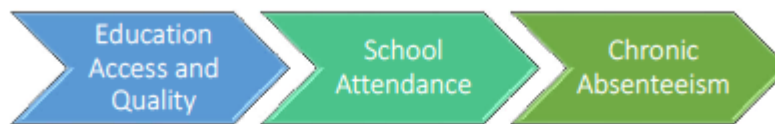
**(4) Food-Security/Hunger Scale:** Questions 2-16 provide a complete, validated set of food-insecurity/hunger indicator variables for use in: (1) scaled measurement of the severity of household food insecurity and hunger; (2) classification of households according to designated severity ranges; and (3) comparison of food-insecurity and hunger prevalence with national benchmark data. See Chapter 3 for detailed guidance on coding household responses and calculating household scale scores and status levels.

## APPENDIX 1.4: GROUP PRESENTATION SLIDES AND SCRIPT



Thank you for the opportunity to speak with you today. My name is Amanda Fitterer and I'm joined by Anna Feld, Sarah Johnson, and Kim Ragan. We're very excited to share our plans for Breakfast After the Bell, which is a nutrition-based program aimed at improving education access and quality in the schools in Cleveland County.

## Overview of SDOH in the county



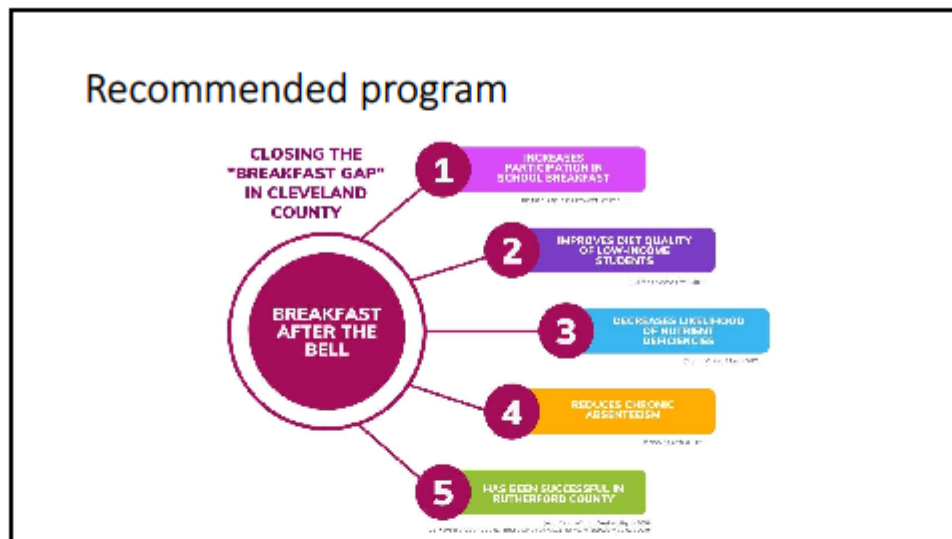
Chronic Absenteeism – miss 10% or more school days during the year

- Cleveland County: 14.34% overall
- Increases between middle and high school in the United States
  - Middle School: 14%
  - High School: 20%
- Racial and ethnic disparities in North Carolina
  - Hispanic: 18.2%
  - Black: 16.3%
  - White: 14.1%
- Students living in poverty more likely to be absent
- Food insecurity is strongly linked with attendance

Robert Wood Johnson Foundation, 2016; Osborne Urquhart, 2019; United States Department of Education, 2016; Allison et al, 2019; Centers for Disease Control and Prevention, 2021

Education access and quality is one of the 5 domains of SDOH and is important because individuals “with higher levels of education are more likely to be healthier and live longer” according to the US dept of Health and Human services. Physical, mental, and social health are directly influenced by attendance in school, therefore ensuring students are able to attend school regularly is crucial. Chronic absenteeism, which is defined as being absent 10% or more school days during the year, is linked with higher rates of diabetes, obesity, and premature death. It is, therefore, important to reduce chronic absenteeism and ensure that students are able to attend school regularly. In Cleveland County specifically, the chronic absenteeism rate in 2018 which was the most recent year for which data is available, was 14.34%. A breakdown by race, ethnicity, and SES is not available for Cleveland County Schools, but disparities are regularly observed at both the state and national level so it is reasonable to expect that similar disparities also exist in Cleveland County. Food insecurity negatively influences, and consumption of a healthful diet positively influences school attendance, so efforts aimed towards addressing food insecurity and diet quality should have a trickle down effect on attendance and school success.

## Recommended program



We recommend expanding Breakfast After the Bell (BAB) programs in Cleveland County secondary schools as a way to close the "breakfast gap." The "breakfast gap" is defined as the ratio of students who participate in school breakfast per 100 students that participate in school lunch. This ratio is used by the Food Research & Action Center (FRAC) to determine how much of the breakfast need is being met.

BAB programs utilize alternative service models to increase students' accessibility to school breakfast. There are three main models: breakfast in the classroom, grab and go, and second chance breakfast. Breakfast in the classroom is when students eat breakfast in their classrooms during instructional time; grab and go involves students picking up bagged breakfasts upon arrival to school in convenient areas, such as the cafeteria, and eating it in the classroom or other places around the school before and after the bell rings; and second chance breakfast is offered later in the morning, either after first period or halfway between breakfast and lunch, typically as a grab and go style.

The Food Research & Action Center identified implementing BAB as a key strategy for increasing breakfast participation (North Carolina School Breakfast Report 2018). With BAB increasing school breakfast participation, it will also help to improve diet quality of low-income students, since low-income students who eat both breakfast and lunch at school have significantly better diet quality overall than those who do not (Guardia, Charlot & Perez, 2017). BAB decreases the likelihood of nutrient deficiencies as students who participate in school meals are less likely to be deficient in essential nutrients (Guardia,

Charlot & Perez, 2017). BAB has been demonstrated to reduce chronic absenteeism, especially among high school students (Kirksey & Gottfreid, 2021). One of Cleveland County's peer counties, Rutherford County, has implemented innovative breakfast models. They were in the top ten school districts in NC for their ratio of FRP school breakfast to lunch participation in 2016-17. Their ratio in the 2019-20 school year was 82.95 (*North Carolina School Breakfast Report 2018*). The Food Research & Action Center goal is 70 and Cleveland County has a ratio of 57.54. Since Rutherford County is such a high-performing county in terms of the school breakfast need being met, and it has implemented innovative breakfast models, it is feasible that its peer county, Cleveland County, could have success with this model as well.



# Stakeholders

## Primary Stakeholders

- CCS students and families

## Other Key Stakeholders

- School Nutrition Team
  - Director, cafeteria managers, staff
- Cleveland County Health Department
- School-level administrators
- Teachers and Staff
  - School Leadership Team

<b>Social</b> <ul style="list-style-type: none"> <li>• Parents (different genders, ages, races)</li> <li>• Students (different genders, ages, races)</li> <li>• District-level school leaders</li> <li>• School-level administrators</li> <li>• Teachers</li> <li>• School Nurse</li> <li>• School Resource Officer</li> </ul>	<b>Technical</b> <ul style="list-style-type: none"> <li>• Director of School Nutrition</li> <li>• Cafeteria Manager</li> <li>• Cleveland County Schools Custodial Manager</li> <li>• School-level Lead Custodian</li> <li>• Cafeteria Worker</li> <li>• School Nutrition Director from a peer county who has implemented Breakfast After the Bell in their district</li> </ul>
<b>Economic (Environmental)</b> <ul style="list-style-type: none"> <li>• Local food distributors</li> <li>• Cleveland County Health Department</li> <li>• Local business owner</li> </ul>	<b>Political</b> <ul style="list-style-type: none"> <li>• Board of Education</li> <li>• NC Department of Public Instruction</li> <li>• Federal School Food Program regulations</li> <li>• Local medical provider</li> <li>• Cleveland County Commissioner</li> </ul>

Designing and implementing a successful program in Cleveland County Schools will require the involvement of a diverse group of stakeholders. We first used the STE(E)P Scan to initially help identify these individuals from different social, technical, economic, environmental, and political contexts in and around Cleveland County, which you can see [here](#).

Our primary stakeholders will be the Cleveland County secondary students and their families. They are the primary beneficiaries of the breakfast program, and their input will be required in order to design the program with their needs in mind. Their feedback will be important both initially, as we seek to understand current barriers to breakfast, and then throughout the program to assess effectiveness and to ensure its sustainability. A key stakeholder group will be the current school nutrition teams, including the director, Jada Brown, who will oversee the overall program, and each cafeteria manager, who will be intimately aware of current meal distribution logistics. The Cleveland County Health Department will be crucial in providing a public health lens to the program staff, and then in promoting the program after its implementation. School-level stakeholders will be the administrators, teachers and school staff, including the School Leadership Team, which is a group that already exists to help implement innovative ideas into the schools.

## Budget

Description	Cost per Unit	Number of Units	Total Cost	Source
Food service assistant, 1 per school, 50% FTE (includes salary, fringe benefits, and health insurance)	\$18,077.40	12	\$216,928.80	NC Office of Human Resources, n.d.
Cleaning supplies and trash bags	\$35 per month per classroom	6000	\$210,000	American Federation of Teachers (AFT), 2017
Bags for meals	\$20 per month per school	120	\$2400	AFT, 2017
Carts on wheels, 2 per school	\$90 each	24	\$2160	AFT, 2017
Large coolers, 3 per school	\$80 each	36	\$2880	AFT, 2017
Kiosk, 1 per school	\$3000	12	\$36,000	AFT, 2017
<b>GRAND TOTAL</b>			<b>\$491,968.80</b>	

Our proposed, annual budget is outlined here. Each school year, the majority of dollars will go toward personnel, specifically to hire a part-time food service assistant for each school. Other expenses include supplies to run a successful program: some being one-time purchases, like kiosks and coolers, with other supplies required monthly, like cleaning supplies and containers for meals, bringing our annual budget to just over 491 thousand dollars, with less money required in subsequent years.

## Engagement and Accountability Plan



To implement BAB in the Cleveland County Schools' middle and high schools for the 2023 SY, we will first establish stakeholder engagement, communication, and accountability plans.

## Engagement Plan

1. Use a stakeholder engagement matrix to outline:
  - scope
  - boundaries
  - metrics
  - timeline
2. Engagement Plan includes:
  - Stakeholder identification- Who needs to be at the table?
  - Stakeholder interest, power, and influence



Process flow of stakeholder engagement [left of top arrow ... (cont.)]. Retrieved April 7, 2021, from [https://www.researchgate.net/figure/Process-Flow-of-Stakeholder-Engagement-left-of-top-arrow-right-of-top-arrow\\_fig14\\_35962664](https://www.researchgate.net/figure/Process-Flow-of-Stakeholder-Engagement-left-of-top-arrow-right-of-top-arrow_fig14_35962664)

A stakeholder engagement matrix will be used to outline the scope of the project, define boundaries, decide on the metrics, and create a timeline. Then all stakeholders will be invited to an initial networking session to solicit their participation and acknowledge the assets that they each bring that can help implement a successful BAB program. The goals of the session will be to inform stakeholders of the rationale of the project, what decisions have already been made, why, how, and by whom? To share the data and analyses that shaped the understanding of the issues and strategies, identify common language and key jargon, outline the challenges the initiative faces, ask if anyone is missing from the conversation, and introduce the proposed timeline. It will be important for the consultants to listen, establish trust, and share power so that the community members have a sense of self-determination (Leading Inside Out & the Collective Impact Forum, 2017).



## Accountability

MOU established between CCS & CCPHD to implement BAB

- Effective 2023 school year
- CCS is responsible for BAB
- CCPHD will assist in marketing and promotion of the program



A memorandum of understanding will be established between the Cleveland County School District and the Cleveland County Public Health Department to communicate the mutual goals and responsibilities of each organization in establishing the Breakfast After the Bell Program. There will be a press release to announce the agreement to work together in the true spirit of partnership to address the issue of food insecurity in the county and the potential impact it can have on students' educational success and health outcomes. The school district will serve as the backbone agency responsible for the BAB program and will be responsible for program implementation, budget, evaluation, and grant deliverables. The health department agrees to support and promote the program.

## Program Evaluation

### Short Term

# of schools that implement BAB program by the start of the 2023-2024 school year

Change in Health Eating Index among participants

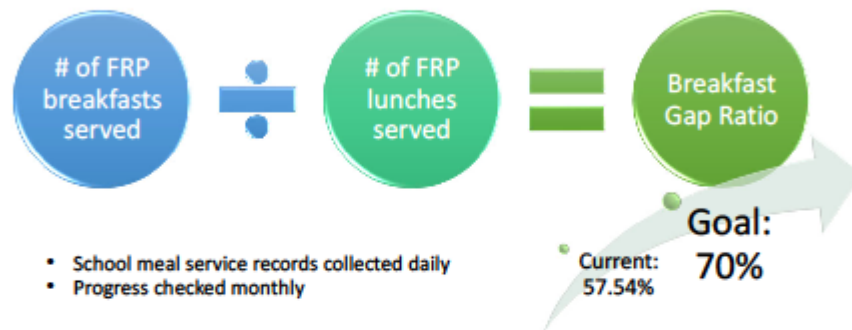
### Long Term

Prevalence of marginal food insecurity

Breakfast Gap Ratio

We plan to track the success of the program by monitoring progress towards both short and long-term goals. In the short term, we expect to see at least 75% of secondary schools in Cleveland County implement a BAB program by the start of the 23-24 school year, and within 2 years we expect to see the diet quality of participants improve by 4 points on the Healthy Eating Index. In the long-term, we expect that marginal food insecurity will be reduced by 10% within the first 10 years of the program and the breakfast gap ratio will meet or exceed the FRAC goal of 70%.

## Evaluation Plan



As Anna explained earlier, the breakfast gap ratio is a measure of what portion of FRP eligible students who eat school lunch also eat school breakfast. This will be the primary outcome of interest for this program, and will be tracked and evaluated using school meal service records, which will be an existing data set since the schools are already required to keep records of meals served in order to receive reimbursement from the USDA for the National School Lunch Program. In order to meet the 70% FRAC goal, an improvement of 12.5% will be necessary over the 10 year period. To ensure progress towards this goal, the County Director of School Nutrition Services will analyze school meal service records on a monthly basis. If adequate progress is not being made, additional strategies such as contests, challenges, nudges, taste tests, special guests, and others can be put in place to help promote participation in breakfast. As participation in school breakfast increases, we expect to see corresponding increases in school attendance and school performance, which will have positive long term effects on the health and wellbeing of the students involved.





Thank you for your time and consideration – what questions can we answer for you?

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## APPENDIX B: ANNA FELD'S INDIVIDUAL DELIVERABLES

### Problem Statement

#### Social Determinant of Health

Education access and quality is the key social determinant of health that Cleveland County, North Carolina, should focus on addressing in order to improve the health of the community. Specifically, Cleveland County should focus on increasing school attendance of all adolescents in the county. School attendance is important for educational achievement, therefore in the short-term, improving attendance could lead to improved education (*Every School Day Counts: The Forum Guide to collecting and using attendance data*). There is a strong relationship between education and high income (Wolla & Sullivan, 2017). People of a higher socioeconomic status may be more physically healthy than those of a lower socioeconomic status (Wang & Geng, 2019). Education serves as a key factor in boosting the economic status of the community in the long-term, and therefore, also improving overall health. A systematic review by Tamiru and Belachew found that children who were food secure were fifty-seven percent less likely to be absent from school than those who were food insecure (OR 0.43, 95% CI 0.36-0.51) (Tamiru & Belachew, 2017).

#### Geographic and Historical Context

Cleveland County, NC is a rural county in the southwestern piedmont region of North Carolina (*2019 Cleveland County Community Health Assessment – NC DHHS*). The Cleveland County school district consists of sixteen elementary schools, six middle schools, five high schools, a virtual school, an alternative school for at-risk students and a special purpose school for students with intellectual disabilities (*Cleveland County Schools*). It is an economically disadvantaged county, with 25.5% of families in the school district living below the poverty level and 29.3% of families relying on food stamps/SNAP benefits (*Cleveland County Schools, NC*). The poverty rate in Cleveland County is 19.9%, compared to 16.1% in all of NC (*2019 Cleveland County Community Health Assessment – NC DHHS*). Cleveland County is 72.8%

non-Hispanic white, 20.6% non-Hispanic black and 3.8% Hispanic (*Explore health rankings: Use the data*). Over half of the population lives in a rural area. There have been various attempts to address the lack of access to nutritious foods in the Cleveland County school district. One of these is the establishment of the Community Eligibility Provision (CEP), where all of the students are provided free breakfast and lunch regardless of their household income (*Community Eligibility Provision*). Cleveland County also has the Empty Tummy Program, which offers bagged groceries, Shephard's table food pantry and soup kitchen and Food and Nutrition Services monthly benefits on an electronic benefit transfer (EBT) card (NCCARE 360).

### **Priority Population**

School attendance is a much bigger issue in adolescence, making them the priority population for improving education access and quality in Cleveland County. The chronic absenteeism rate in NC is much higher in high schoolers (21.2%), than in elementary (11.2%) and middle schoolers (14.4%) (Osborne, 2019). The rate also varies by race and ethnicity. In NC, the rate of chronic absenteeism is lower in Asian and white children than in black, Hispanic, and American Indian children (Osborne, 2019) (Table 2.2). This data highlights the disparity in chronic absenteeism by race and the need to make adolescents who are racial and/or ethnic minorities a target for public health intervention. Minorities are not only disproportionately affected by chronic absenteeism, but also by food insecurity. Children who reside in low-income neighborhoods and neighborhoods with large minority populations are more likely to have limited access to healthy foods (*North Carolina Institute of Medicine 2020*). By specifically focusing on high schoolers, particularly those of a lower socio-economic status and those of a minority race/ethnicity, Cleveland County can work towards minimizing the disparities in school attendance and therefore educational achievement and better health outcomes in the long run.

### **Measure of Problem Scope**

Chronic absenteeism is defined as having missed fifteen or more days of school over the school year (Osborne, 2019). In 2015-2016, the chronic absence rate for Cleveland County was

14.34%, just under the state average of 14.8% (Osborne, 2019). There is a huge variation in chronic absenteeism within the county, as the school with lowest rate has 0.0% chronic absenteeism and the highest rate is 73.2% (Osborne, 2019). Racial and ethnic disparities in chronic absenteeism are present in North Carolina. Hispanic students and black students have chronic absence rates of 18.2% and 16.3%, respectively, compared to 14.1% for white students (Osborne, 2019).

The North Carolina Department of Public Instruction measures attendance by calculating the ratio of Average Daily Attendance (ADA) to Average Daily Membership (ADM). Cleveland County is in the bottom-performing 75% of school attendance in NC (*NC DPI*). See table 2 for the ADA:ADM ratios for Cleveland County for the past three years (Table 2.2). Only 84% of Cleveland County residents are high school graduates, compared to 88% of NC residents graduating high school (*Explore health rankings: Use the data*).

Cleveland County has a child food insecurity rate of 22.8%, which is over three times as high as the rate for the population as a whole (*Child hunger & poverty in North Carolina / map the meal gap 2021*). In both all of NC and in Cleveland County, 7% of residents have limited access to healthy foods, while the Healthy NC 2030 goal is 5% (*North Carolina Institute of Medicine 2020*). These percentages refer to the population that lives fewer than one mile from a grocery store in urban areas and fewer than ten miles from a grocery store in rural areas (*North Carolina Institute of Medicine 2020*). Cleveland County, NC has a food environment index score of 7.0 on a scale from zero to ten, while the top performing counties in the United States have a score of 8.7 (*Explore health rankings: Use the data*).

### **Rationale/Importance**

Improving education quality and access through school attendance should be a priority for improving the health of Cleveland County as obtaining a higher level of education is associated with a lower risk of death later in life (*Increase the proportion of high school students who graduate in 4 years - AH-08*). Focusing on improving access to nutritious foods can be an

effective way to increase education quality, as there is a relationship between nutrition status and education. Children with iron-deficiency may be fatigued and therefore have a more difficult time focusing and learning at school (Shankar et al., 2017). Decreasing the percentage of NC residents with limited access to healthy food is a Healthy NC 2030 health indicator (*North Carolina Institute of Medicine* 2020). Food access is an issue that is important to residents of Cleveland County, and therefore should be a priority area for public health intervention. In the 2019 Community Health Assessment for Cleveland County, limited access to healthy food was identified as the seventh ranked health indicator, out of twenty-one, and was highlighted as an area that Cleveland County Public Health Center could work on to improve (2019 Cleveland County Community Health Assessment – NC DHHS).

### **Disciplinary Critique**

The Centers for Disease Control and Prevention (CDC) has identified several key pieces of evidence on the relationship between nutrition and academic achievement. Students who skip breakfast are more likely to have poorer cognitive performance (*Health and Academic Achievement* 2014). Limited intake of certain health-promoting food groups, such as produce, is associated with lower grades (*Health and Academic Achievement* 2014). Micronutrient deficiencies are also associated with lower grades and even higher rates of absenteeism in school (*Health and Academic Achievement* 2014). Nutritionists should address education and food insecurity because of the established relationship between food insecurity and school attendance, which relates to educational achievement and therefore higher paying jobs and higher health literacy. Addressing food insecurity is an upstream technique for improving quality education and overall health outcomes of the community. As mentioned earlier, food access is more of a problem for people with lower incomes and minority populations. By addressing food access in Cleveland County, this disparity can be addressed. Improving food access can improve education access and quality.

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**TABLE 2.1: CHRONIC ABSENTEEISM BY RACE AND ETHNICITY IN NC 2015-2016**

Asian	8.2%
White	14.1%
Black	16.3%
Hispanic	18.2%
American Indian	27.1%

**TABLE 2.2: AVERAGE DAILY ATTENDANCE (ADA): AVERAGE DAILY MEMBERSHIP (ADM) FOR CLEVELAND COUNTY, NC (NC DPI)**

2019-2019	94.43
2019-2020	96.09
2020-2021	95.27
Three-year ratio	95.27

## Nutrition Program Analysis

### Background Information

The social determinants of health (SDOH) refer to the environmental conditions in which people live that affect their health and quality of life (*Social Determinants of Health*). Education access and quality is the key SDOH that Cleveland County should focus on to improve health outcomes in their community. Specifically, the county should aim to decrease chronic absence rates of students in middle, intermediate and high schools. Chronic absenteeism, defined as missing fifteen or more days of school over the school year, is a problem for Cleveland County, with their chronic absence rate in 2015-16 being 14.34% (Osborne, 2019). School attendance is imperative for educational achievement (*Every School Day Counts: The Forum Guide to collecting and using attendance data*). There is a strong relationship between education and high income (Wolla & Sullivan, 2017). People of a higher socioeconomic status may be more physically healthy than those of a lower socioeconomic status (Wang & Geng, 2019).

Chronic absence from school is related to many factors, including race, socioeconomic status and food insecurity. Chronic absenteeism disproportionately affects children of lower-income families (*The relationship between school attendance and health 2021*). This is particularly relevant to the Cleveland County school district, where 25.5% of families in the school district live below the poverty level (*Cleveland County Schools, NC*). Children of lower socioeconomic status often rely on school meals to supply a major part of their daily nutrition (*2019-20 North Carolina School Breakfast Program Fact Sheet Cleveland County Schools 2019*). Children who are food insecure are more likely to be absent from school than those that are food secure (Tamiru & Belachew, 2017). The priority population for intervention is adolescents in middle, intermediate and high school in Cleveland County, NC, particularly those who are minorities and/or of a low socioeconomic status.

All twenty-nine schools in the Cleveland County district serve breakfast; however, only one of them has implemented an innovative breakfast model (*2019-20 North Carolina School*

*Breakfast Program Fact Sheet Cleveland County Schools 2019*). Rutherford County, NC is a peer county, meaning it is similar in social and economic determinants of health, of Cleveland County (*2019 Cleveland County Community Health Assessment – NC DHHS*). The Food Research and Action Center (FRAC) measures how much of the school breakfast need is being met by the ratio of students eligible for free and reduced-price (FRP) meals who participate in school breakfast per 100 that participate in school lunch (*2019-20 North Carolina School Breakfast Program Fact Sheet Cleveland County Schools 2019*). Rutherford County is in the top ten school districts for the ratio of FRP school breakfast to lunch participation, with a ratio of 81.6 (*North Carolina School Breakfast Report 2018*). Since Rutherford County is such a high-performing county and has implemented innovative breakfast models, it is feasible that its peer county, Cleveland County, could have success with this model as well.

## **Purpose**

The child food insecurity rate for Cleveland County is 22.8% (*Child hunger & poverty in North Carolina / map the meal gap 2021*). Food insecurity refers to the population that has disrupted food intake due to inadequate money and resources (Food insecurity). Students who skip breakfast are more likely to have poorer cognitive and limited intake of certain health-promoting foods is associated with lower grades (*Health and Academic Achievement 2014*). Micronutrient deficiencies are also associated with lower grades and higher rates of absenteeism (*Health and Academic Achievement 2014*). Food insecurity and school attendance impact educational achievement, which in turn impacts health outcomes. Chronic absenteeism is associated with serious health complications later in life (*The relationship between school attendance and health 2021*). People who graduate college are likely to live nine years longer than people that have not graduated from high school (*The relationship between school attendance and health 2021*).

Since chronic absenteeism affects graduation rates (*The relationship between school attendance and health 2021*), and there is a strong relationship between education and high

income (Wolla & Sullivan, 2017), education access and quality, through the decrease in chronic absence rates from school, serves as a key factor in boosting the economic status of the community. Increased educational achievement will lead to improved overall health of the community since people with higher levels of education are likely to live longer (*The relationship between school attendance and health 2021*).

### **Evidence Based Outcomes**

Our program will have a short-term outcome objective that by the start of the 2023-24 school year, at least 75% of Cleveland County intermediate, middle and high schools will implement a breakfast after the bell program. This is feasible, as in the 2019-20 school year, 84% of Rutherford County schools offered at least one innovative breakfast serving model (*2019-20 North Carolina School Breakfast Program Fact Sheet Rutherford County Schools 2019*). The short-term health-related objective will be improved diet quality among students. A study using the National Health and Nutritional Examination Survey (NHANES) III to evaluate impacts of school breakfast programs on diet quality found that access to such programs improves diet quality, as measured by the Healthy Eating Index (HEI) (Bhattacharya et al., 2006).

Cleveland County ranks 71/115 school districts in NC with a FRP meals school breakfast to lunch ratio of 57.54. The ratio for NC is 61.81 and the FRAC goal is 70 (*2019-20 North Carolina School Breakfast Program Fact Sheet Cleveland County Schools 2019*). Our long-term impact objective is to increase the ratio of students eligible for FRP who participate in school breakfast per 100 that participate in school lunch from the current 57.54 to 70 or greater by 2030. Our long-term health impact is to reduce the Cleveland County childhood marginal food insecurity rates by 10% over the next ten years. Longitudinal survey data has shown that students with access to the School Breakfast Program had 12.3% lower rate of marginal food insecurity than those without access (Bartfield & Ahn, 2011).

## Strategies and Activities

There are three main methods of implementing breakfast after the bell: breakfast in the classroom, grab and go, and second chance breakfast. Breakfast in the classroom, which can increase breakfast participation up to 88%, is when students eat breakfast in their classrooms during instructional time (*Breakfast Service Methods • No Kid Hungry NC 2019*). Grab and go is when students pick up bagged breakfasts upon arrival to school in convenient areas, such as the cafeteria, and can eat it in the classroom or other places around the school before and after the bell rings (*Breakfast Service Methods • No Kid Hungry NC 2019*). This method can increase breakfast participation up to 59% of students (*Breakfast Service Methods • No Kid Hungry NC 2019*). Second chance breakfast is offered later in the morning, either after first period or halfway between breakfast and lunch, typically as a grab and go style (*Breakfast Service Methods • No Kid Hungry NC 2019*). This method can allow schools to reach 58% breakfast participation.

Breakfast after the bell will be implemented at each school in the model of their choosing. There are various advantages and disadvantages to each option. For example, second chance breakfast may be a good option for secondary schools as older students may not be hungry first thing in the morning (*Breakfast Service Methods • No Kid Hungry NC 2019*).

Breakfast after the bell will impact residents of Cleveland County at multiple levels of the socio-ecological model. The programs will be a county-wide system. Since they will be implemented at school, it will impact children's living and working conditions, as school is where they spend much of their time. Having breakfast together will foster interpersonal connections among students and will also impact each student's diet on an individual level.

The priority population, adolescents who are minorities and/or of a low socioeconomic status, will all be reached as this program will be implemented at all secondary schools in Cleveland County. The breakfast gap, or the students who are eligible for FRP meals who participate in school lunch but not breakfast, was 3,156 students in 2019 (*2019-20 North*

*Carolina School Breakfast Program Fact Sheet Cleveland County Schools 2019*). Upon implementation of breakfast after the bell, whether it is in the form of breakfast in the classroom, grab and go or second chance breakfast, all students will have access to free breakfast gap may narrow.

### **Stakeholders**

Potential stakeholders include students, guardians, teachers and school staff for food and nutrition services and environmental services. The role of the students is to obtain and consume the free breakfast offered to them. The role of their guardians is to get them to school on time in order to receive their breakfast. Teachers must be supportive of the policy and allow students to eat during instructional time. Food and nutrition services staff must prepare and deliver the meals. Environmental services staff will be responsible for cleaning up messes that are left behind, beyond what is cleaned up by the students and food and nutrition services staff. The Cleveland County school district and public health department are also stakeholders, as they will be responsible for implementing and evaluating the program.

### **Budget**

The breakfast after the bell program in the Cleveland County school district will have a budget of \$500,000. Funds will be allocated towards buying the breakfast food and towards the staff needed to purchase the food, prepare the food, deliver the food and clean up after breakfast is served. Equipment needed may be minimal if the breakfasts are grab and go, as the food served will not require extensive preparation. Examples of this type of breakfast may include yogurt, fruit and cereals. Breakfast in the classroom models may require the purchase of a cart to deliver meals. Funds will also be used for training staff who will implement the program and for promoting the program to students and families.

### **Conclusion**

A major advantage to breakfast after the bell programs is that they can be implemented into the already full school-day schedule. Extra time is not needed to provide students with

breakfast when they are able to pick it up on the way to class and eat it during instructional time. It will also be accessible to all students, which can help address the disparity of food access in students of different socioeconomic statuses. Providing the meals free for all students will eliminate the need for students to wait in line to pay for their meals, allowing them more time to consume their food. One disadvantage is that some classrooms may not be suitable for eating, specifically in science labs or during physical education. Another is that eating during instruction time may provide some distraction from the lesson plan, although hopefully this would be minimized by offering the same breakfast to every student to eat at their own convenience. By allowing students to eat in classrooms, there is a potential for more mess and increased need of cleaning by janitorial staff. Prioritized values include providing equitable access to nutritious meals to all children. The trade-off of this is that some students will receive meals that the county will pay for, even though they are food insecure and have access to nutritious meals at home. This trade-off is worth it because providing the meals to everyone will improve ease of implementation and will avoid the opportunity for stigma surrounding those who receive free school meals.



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## Implementation and Evaluation Plan

### Intervention Summary

The social determinants of health (SDOH) refer to the environmental conditions in which people live that affect their health and quality of life (*Social Determinants of Health*). Cleveland County should focus on education access and quality to improve health outcomes in their community. Specifically, the county should aim to decrease chronic absence rates of students in middle and high schools. School attendance is important for educational achievement; therefore, in the short term, improving attendance could lead to improved education (*Every School Day Counts: The Forum Guide to collecting and using attendance data*). There is a strong relationship between education and high income (Wolla & Sullivan, 2017). People of a higher socioeconomic status may be more physically healthy than those of a lower socioeconomic status (Wang & Geng, 2019). Education serves as a key factor in boosting the economic success of the community in the long term; therefore, also improving overall health.

Children who are food secure are less likely to be absent from school (Tamiru & Belachew, 2017). Expanding Breakfast After the Bell (BAB) programs in Cleveland County middle and high schools is a priority public health intervention to improve food security and school attendance. The Food Research and Action Center (FRAC) assess how much of the school breakfast need is being met by looking at the ratio of students eligible for free and reduced-price (FRP) meals who participate in school breakfast per 100 that participate in school lunch (*2019-20 North Carolina School Breakfast Program Fact Sheet Cleveland County Schools 2019*). The ratio for Cleveland County is 57.54 and the goal set by the FRAC is 70 (*2019-20 North Carolina School Breakfast Program Fact Sheet Cleveland County Schools 2019*). The long-term impact objective of this program is to increase the ratio to 70 or greater by 2030.

## **Evaluation Plan**

### **Study Design/Data Collection**

Observational data of how many FRP-eligible students receive get school breakfast and school lunch will be collected. These numbers will be used to estimate the “breakfast gap,” defined as the ratio of students who participate in school breakfast per 100 students that participate in school lunch. The “breakfast gap” represents how much of the breakfast need is being met. This data will be analyzed for each school year, as this is what is currently tracked by No Kid Hungry on their school breakfast program fact sheets (*2019-20 North Carolina School Breakfast Program Fact Sheet Cleveland County Schools 2019*).

### **Sample and Sampling Strategy**

The sample for the program will include Cleveland County’s six middle and five high schools (*Cleveland County Schools*). All the students at each school who are eligible for FRP meals will be included in the evaluation. Since Cleveland County school district participates in the community eligibility provision, all students are eligible for FRP meals, and therefore, all students in these schools will be included (*Community Eligibility Provision*).

### **Specific Measures**

The number of school breakfasts served, and number of school lunches served each academic year will be recorded. These numbers will be used to calculate the ratio of students eligible for FRP meals who participate in school breakfast per 100 that participate in school lunch. The goal will be 70 or greater per the FRAC (*2019-20 North Carolina School Breakfast Program Fact Sheet Cleveland County Schools 2019*). This is a feasible goal as Rutherford County, one of Cleveland County’s peer counties, has achieved a ratio of 81.6 (*North Carolina School Breakfast Report 2018*).

### **Analysis Plan**

School foodservice records on meals served will be obtained to identify how many students participate in school breakfast and which ones participate in school lunch. The ratio of

students eligible for FRP meals who participate in school breakfast per 100 that participate in school lunch will be calculated to assess the “breakfast gap.” This data will be looked at annually, at the end of each school year, and will be compared to the ratio for the county before BAB was expanded. A higher ratio means the “breakfast gap” is closing and more of the breakfast need is being met.

### **Timing**

This data will be tracked from the 2023-24 school year for ten years of follow-up. The “breakfast gap” at baseline, from the 2023-24 school year, will be monitored annually and compared to the “breakfast gap” at follow-up, the 2033-34 school year. Progress will be defined as an increase in the ratio above 57.54, with a goal of 70 or higher, per the FRAC (*2019-20 North Carolina School Breakfast Program Fact Sheet Cleveland County Schools 2019*). If progress does not occur each school year, the Cleveland County Health Department (CCHD) will first identify how many middle and high schools in the district implemented a breakfast after the bell program. They will then conduct focus groups with any schools that did not implement this and assess barriers to implementation and brainstorm how to overcome those barriers. They will work with the schools that have implemented breakfast after the bell and assess if they have had increased breakfast participation at their school. If not, options for them to consider changing models of breakfast will be discussed.

### **Sources of Funding**

The initial budget of \$500,000 from the Cleveland County Commissioners will be used. The project will be sustained by the Cleveland County School Health Advisory Council. We will also apply for a grant from No Kid Hungry, as they have previously distributed grants for implementing breakfast after the bell programs.

## **Data Use and Dissemination**

The CCHD will disseminate this data on their website, in addition to the Cleveland County schools website. The CCHD will also share their data with No Kid Hungry, to contribute to their annual school breakfast fact sheets that assess the “breakfast gap.”

## **Strengths and Challenges**

By making breakfast more available to students in Cleveland County middle and high schools, this program has the potential to close the “breakfast gap.” Students will have improved access to nutritious foods, and therefore, will be able to learn better. Since school meals have the opportunity to provide 2/3 of a child’s meals during the school week, they have the potential to greatly impact diet quality. Nutrition impacts a child’s education quality in a variety of ways. For example, children with iron-deficiency may be fatigued and therefore have a more difficult time focusing and learning at school (Shankar et al., 2017). With nutritionally complete school breakfasts and lunches, students will be prepared to learn. Their education quality will improve, followed by educational achievement. Since there is a strong relationship between education and high income (Wolla & Sullivan, 2017), as children go on to complete higher levels of education, they can be expected to get higher-paying jobs. This would improve their socioeconomic status and that of the community as a whole. Aside from the economic benefits, people of a higher socioeconomic status may be more physically healthy than those of a lower socioeconomic status (Wang & Geng, 2019). This would lead to improved overall health of the community. Another strength of this program expansion is that the data to measure its success, the ratio of kids who are eligible for FRP that participate in school breakfast per 100 that participate in school lunch, is already being tracked. A major challenge of expanding the program will be getting buy-in from teachers to have students eating in their classrooms and environmental services staff being responsible for cleaning up any additional mess. Schools also may have to adapt their breakfast model if the one they choose does not improve their school breakfast to lunch ratio.

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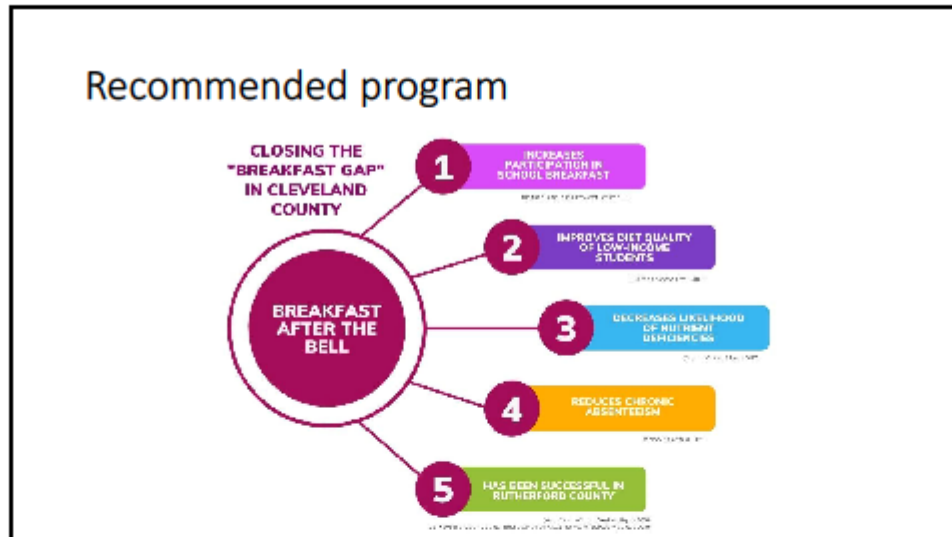
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## Presentation Slides and Script



We recommend expanding Breakfast After the Bell (BAB) programs in Cleveland County secondary schools as a way to close the "breakfast gap." The "breakfast gap" is defined as the ratio of students who participate in school breakfast per 100 students that participate in school lunch. This ratio is used by the Food Research & Action Center (FRAC) to determine how much of the breakfast need is being met.

BAB programs utilize alternative service models to increase students' accessibility to school breakfast. There are three main models: breakfast in the classroom, grab and go, and second chance breakfast. Breakfast in the classroom is when students eat breakfast in their classrooms during instructional time; grab and go involves students picking up bagged breakfasts upon arrival to school in convenient areas, such as the cafeteria, and eating it in the classroom or other places around the school before and after the bell rings; and second chance breakfast is offered later in the morning, either after first period or halfway between breakfast and lunch, typically as a grab and go style.

The Food Research & Action Center identified implementing BAB as a key strategy for increasing breakfast participation (North Carolina School Breakfast Report 2018). With BAB increasing school breakfast participation, it will also help to improve diet quality of low-income students, since low-income students who eat both breakfast and lunch at school have significantly better diet quality overall than those who do not (Guardia, Charlot & Perez, 2017). BAB decreases the likelihood of nutrient deficiencies as students who participate in school meals are less likely to be deficient in essential nutrients (Guardia,

Charlot & Perez, 2017). BAB has been demonstrated to reduce chronic absenteeism, especially among high school students (Kirksey & Gottfreid, 2021). One of Cleveland County's peer counties, Rutherford County, has implemented innovative breakfast models. They were in the top ten school districts in NC for their ratio of FRP school breakfast to lunch participation in 2016-17. Their ratio in the 2019-20 school year was 82.95 (*North Carolina School Breakfast Report 2018*). The Food Research & Action Center goal is 70 and Cleveland County has a ratio of 57.54. Since Rutherford County is such a high-performing county in terms of the school breakfast need being met, and it has implemented innovative breakfast models, it is feasible that its peer county, Cleveland County, could have success with this model as well.

## **APPENDIX C: AMANDA FITTERER'S INDIVIDUAL DELIVERABLES**

### **Problem Statement**

#### **Social Determinant of Health**

Social Determinants of Health (SDoH) are “the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life,” and research estimates that between 30-55% of health outcomes are directly influenced by SDoH (World Health Organization, n.d.). As such, addressing these factors will improve health of individuals as well as inequities in health. One SDoH is Education Access and Quality, and research has demonstrated that “people with higher levels of education are more likely to be healthier and live longer” (United States Department of Health and Human Services, n.d.). Furthermore, lower education attainment is directly linked with decreased employment opportunities and income potential, which in turn have long-term impacts on health and well-being (North Carolina Institute of Medicine, 2020).

One important aspect of education access and quality is attendance in school, which is related to physical, mental, and social health (Robert Wood Johnson Foundation, 2016). Students living in poverty are more likely to be absent from school than those from higher-income families (Allison et al, 2019). These students often qualify for the free and reduced lunch programs. Students who participate in school meals are less likely to be deficient in essential nutrients, and low-income students who eat both breakfast and lunch at school have significantly better diet quality overall than those who do not (Guardia, Charlot & Perez, 2017).

According to the Robert Wood Johnson Foundation (RWJF), chronic absenteeism, which is defined as being absent from school 10% or more of the school days, or 15 or more days, during the year, is linked with serious health issues into adulthood (RWJF, 2016). In the short term, chronically absent students are more likely to drop out of school and will therefore not be able to attend college (RWJF, 2016). This will negatively impact their lifespan; on

average college graduates live 9 years longer than those who do not complete high school (United States Department of Education, 2016).

### **Geographic and Historical Context**

Cleveland County covers 465 square miles and is located along the southwestern border of North Carolina (Cleveland County Health Department, 2020). Cleveland County boasts the Public Health Center and Behavioral Health facility completed in 2016 that provides numerous services to community members (Cleveland County Health Department, 2020).

Historically, the county's economy was largely based on agriculture, however since the 1960s manufacturing and distribution have taken over as the primary industries with more than 40% of the county's workforce employed in manufacturing (Cleveland County Health Department, 2020). Employment in the region has been largely influenced by economic changes since the turn of the century, and the 2019 unemployment rate was 4.7% (Cleveland County Health Department, 2020). A workforce readiness program called *Accelerate Cleveland* was developed in 2019 to support underemployed individuals with career development to address underemployment and the 19.9% poverty rate in the region (Cleveland County Health Department, 2020).

The largest employer in the county is Cleveland County Schools (Cleveland County Health Department, 2020). The school district is home to 16 elementary schools, 2 intermediate schools, 4 middle schools, 5 high schools, one alternative school, and one special purpose school (Cleveland County Schools, 2022). Cleveland County also has one charter school and several private schools (Cleveland County Health Department, 2020). Higher education options in the county include Cleveland Community College and Gardner-Webb University, a private 4-year institution (Cleveland County Health Department, 2020).

### **Priority Population**

Cleveland County Schools served 14,293 students during the 2020-2021 school year, 6,886 of whom were in grades 7-12 (Public Schools of North Carolina State Board of Education

Department of Public Instruction, n.d.). This group of students is of particular interest given that chronic absenteeism in the United States sharply increases between middle and high school, demonstrated by a rate of 14% of middle school students being chronically absent compared to over 20% of high school students (United States Department of Education, 2016).

Quality education is a concern of the community, with dropping out of school ranked 14<sup>th</sup> on the list of community concerns in the 2019 Community Health Assessment (Cleveland County Health Department, 2020). An important factor contributing to success in school is access to healthful foods, as students from food secure households are 57% less likely to be absent (Tamiru & Belachew, 2017).

### **Measures of the Problem Scope**

Chronic absenteeism is a problem in Cleveland County, which had a 14.34% chronic absenteeism rate in 2016, compared to the North Carolina rate of 14.6% (Osborne, 2019). The graduation rate in 2018 for Cleveland County Schools was 88%; 10.7% of the population over age 25 have a 9<sup>th</sup> to 12<sup>th</sup> grade education, and 5.4% have less than a 9<sup>th</sup> grade education (Cleveland County Health Department, 2020). This is comparable to North Carolina's graduation rate of 86% for the same year (Cleveland County Health Department, 2020).

Among students in Cleveland County Schools, 57.57% of students were eligible for free and reduced lunch during the 2018-19 school year (Cleveland County Health Department, 2020). While data regarding these values among chronically absent students is unavailable for Cleveland County or for North Carolina, it is likely that rates of absenteeism are correlated with rates of free and reduced lunch eligibility and food insecurity given the strong linkages observed in Tamiru and Belachew's 2017 systematic review.

### **Rationale/Importance**

Given the strong associations between school absenteeism and health outcomes, efforts aimed at minimizing school absences will have positive influences on both short- and long-term health outcomes. Furthermore, nutritional factors such as food insecurity and consumption of a

healthful diet have inverse and direct correlations with school attendance, respectively (Centers for Disease Control and Prevention, 2014). As such, addressing these factors will result in improved school attendance, graduation rates, educational attainment, and health outcomes.

### **Disciplinary Critique**

Public health nutrition professionals should be concerned with and address nutrition related factors contributing to absenteeism. Food insecurity is a priority for nutrition professionals and has been linked with attendance, as average daily attendance rates are lower in areas with higher household food insecurity (Coughenour et al, 2021). Nutritional status and access to food are also of importance since poor nutrition is linked to illness and school absences (Stuber, 2014). Nutrient deficiencies arising from lack of adequate consumption of foods such as fruits, vegetables, and dairy products has been associated with lower grades among students; this is an area that nutritional professionals can and should focus their efforts (Centers for Disease Control and Prevention, 2014). By addressing these factors, public health nutrition professionals can positively influence school attendance rates as well as overall educational attainment and health.

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## **Nutrition Program Analysis**

### **Background Information**

Education Access and Quality is an important Social Determinant of Health (SDoH), as research has demonstrated that individuals with higher educational attainment live longer, healthier lives (United States Department of Health and Human Services, n.d.). For individuals to achieve high levels of educational attainment, it is important that they can attend school regularly (Robert Wood Johnson Foundation (RWJF), 2016). Chronic absenteeism, which is defined as being absent 15 or more school days during the year, is a significant problem that has been linked with serious health issues into adulthood (RWJF, 2016). This is particularly prevalent in Cleveland County, where the chronic absenteeism rate in 2018 was 14.34% (Osborne, 2019).

Students living in poverty are more likely to be absent from school than those from higher-income families (Allison et al, 2019). These students often qualify for the free and reduced lunch programs (FRP). In Cleveland County, 57.57% of students are FRP-eligible and 17% of people in the county are affected by food insecurity (Cleveland County Department of Health, 2020). Students who participate in school meals are less likely to be deficient in essential nutrients, and low-income students who eat both breakfast and lunch at school have significantly better diet quality overall than those who do not (Guardia, Charlot & Perez, 2017). Furthermore, students from food secure households are 57% less likely to be absent than those who are food insecure (Tamiru & Belachew, 2017).

### **Purpose**

A key nutrition issue is access to healthful food, and limited access to healthful foods was ranked as the seventh highest health indicator by stakeholders in the 2019 community health assessment (Cleveland County Department of Health, 2020). School breakfast is one source of healthful food, and eating breakfast has a positive association with school performance (Adolphus, Lawton, and Dye, 2013). Additionally, school breakfasts have a positive

impact on fruit and vegetable consumption among participants (Cheyne et al, 2017). In 2019, only 31% of students in Cleveland County participated in school breakfast and there is a significant breakfast gap of 3,156 students (No Kid Hungry NC, 2021). The breakfast gap compares the number of students who are eligible for FRP meals who participate in school lunch who do not participate in school breakfast (No Kid Hungry NC, 2021).

An innovative method to increase participation in school breakfast is implementation of a Breakfast After the Bell (BAB) program (No Kid Hungry NC, 2021). BAB has been demonstrated to reduce chronic absenteeism, especially among high school students (Kirksey & Gottfreid, 2021). Reductions in chronic absenteeism are crucial since it is linked with health issues in adulthood (RWJF, 2016). Furthermore, lifespan is on average 9 years shorter in individuals who do not complete high school, and chronically absent students are more likely to drop out of school (United States Department of Education, 2016). Dropping out of school was ranked as the 14<sup>th</sup> highest quality of life issue by Cleveland County stakeholders (Cleveland County Department of Health, 2020).

### **Evidence Based Outcomes**

In the short-term, at least 75% of Cleveland County secondary schools will have fully implemented a BAB program by the start of the 2023-2024 school year. If 75%, or nine, of the secondary schools were to implement BAB, this would equate to 30% of schools in the county, which has been achieved or exceeded in all of Cleveland County's peer counties (No Kid Hungry NC, 2021). An additional short-term objective is that within two years, diet quality as measured by the Healthy Eating Index (HEI) will be improved by 4 points among participants due to increased intake of fruit, whole grain, and dairy (Bhattacharya et al, 2006).

In the long-term, at least 70% of FRP-eligible students who eat lunch will also eat school breakfast by 2030. This is in line with the Food and Research Action Center (FRAC) goal (Philbin, n.d.). Furthermore, marginal food insecurity among Cleveland County Schools secondary school-aged students will be reduced by 10% over the first 10 years of the program.

This number is derived from observations of nationally representative longitudinal survey data which demonstrated that 29.2% of students with access to the School Breakfast Program were marginally food insecure while those without access were 42.2% marginally food insecure, a difference of 12.3% (Bartfield & Ahn, 2011).

### **Strategies and Activities**

The proposed program is implementation of a BAB program in all Cleveland County secondary schools, which includes grades 5 through 12. This includes two intermediate schools with grades 5 and 6, four middle schools with grades 7 and 8, and six high schools with grades 9 through 12. Total student enrollment in grades 5 through 12 in Cleveland County during 2020-2021 was 9,175 students (Public Schools of North Carolina, 2021). This number does include elementary school students in grade 5, so the intervention will have a slightly smaller reach. Since Cleveland County Schools have utilized the Community Eligibility Provision (CEP), all students are eligible to receive breakfast at no cost (Cleveland County Schools, n.d.). This program would directly address the living and working conditions level of the social ecological model, which is available in Figure 3.1. BAB programs also address the individual characteristics level of the socio-ecological model, as participation in school breakfast is associated with better diet quality (Food Research & Action Center, 2016). Students who participate in school breakfast are less likely to be deficient in essential nutrients and are more likely to consume fruit and milk and breakfast (Food Research & Action Center, 2016).

There are three BAB models, and the program that works well for one school may not work well for another. School floor plans, staffing, and student traffic patterns all need to be considered when choosing a BAB model. Schools can choose to use one of the models or a hybrid of components from the various models (No Kid Hungry NC, 2021). The United States Department of Agriculture (USDA) has developed a tool (Appendix 3.1) for helping schools determine which model is the best fit for their specific needs (USDA, n.d.). The three models are:

*Breakfast in the Classroom:* With this model, students eat breakfast in the classroom as the name implies. Breakfast may either be delivered to the classroom or served from mobile carts in school hallways (No Kid Hungry NC, 2021). Bagged meals could be picked up in the cafeteria by classroom representatives or delivered by staff if using a classroom delivery model (USDA, n.d.). Carts could be set up in whichever location makes the most sense for each individual school, for example, in the primary entrance near the bus drop-off area.

*Grab and Go:* Mobile service carts are in high-traffic areas throughout the school such as hallways or near the main entryways and students can pick up a prepackaged breakfast. (No Kid Hungry, n.d.) Service carts would be staffed by school nutrition staff (No Kid Hungry NC, 2021).

*Second Chance:* Breakfast is served mid-morning, often after the first instructional period (No Kid Hungry, n.d.). Many secondary school students are not hungry first thing in the morning or prefer to socialize with friends, so this approach generally works well for this demographic (No Kid Hungry, n.d.).

Each school has a cafeteria manager on staff who will be responsible for working with local school administration and personnel to determine which BAB model(s) they would like to implement based on the needs of their school. Within North Carolina, 48% of schools offer BAB (No Kid Hungry NC, 2021). Several of the schools in Cleveland County's peer counties have implemented BAB programs. Table 3.1 summarizes the percentage of schools that have BAB programs in place in Cleveland County's peer counties. This data reflects implementation across all schools, not just secondary schools, but does highlight that Cleveland County currently has the lowest implementation among similar counties with only one school currently utilizing a BAB program. Information about which school has this program is not available, and it is not clear why other schools have not adopted similar programs. This highlights an opportunity for growth for Cleveland County while simultaneously providing confirmation that such programs have been implemented successfully in similar settings.

## **Stakeholders**

Stakeholders for this program include both school-based personnel and community members. Cafeteria Managers will be responsible for collaborating with school administrators and other school-based personnel to determine which BAB model will be implemented at the local school level and will ensure that the program is delivered as intended. Teachers will be able to provide invaluable insight into how the various BAB models may impact instructional time and delivery. Custodial Staff will be tasked with removal of food and packaging waste. It is crucial to consider their input in the planning and implementation of the program.

Students can provide insight into which BAB model would be most convenient and therefore most utilized by the intended audience. Parents of students are important stakeholders in any decision related to their children's education, health, and wellbeing. Members of the Cleveland County School Health Advisory Council are tasked with ensuring breakfast items served in schools meet the federal and state nutrition standards. Lastly, the County Commissioners have ultimate decision-making authority and are crucial to the conversation surrounding program adoption and implementation.

## **Budget**

Funding for this program will primarily come from grants. Organizations such as the Carolina Hunger Initiative, School Nutrition Foundation, Whole Kids Foundation, The Dairy Alliance, and Salad Bars to Schools have grants available for programs such as this one (No Kid Hungry NC, 2021). Funds will cover the costs of equipment and supplies necessary to operate the BAB program as well as salaries of additional food service staff. A table of projected costs is found in Table 3.2.

The cost of food will be covered by federal funds through the CEP via the USDA. This funding is already available since Cleveland County is already utilizing the CEP, therefore these costs are not included in the program budget.

## **Conclusion**

Implementation of innovative BAB programs will improve student outcomes. Eating breakfast is positively associated with school attendance and performance. Students who regularly attend school and have better performance are more likely to graduate, which has implications for improved long-term health. Disadvantages of the program include logistical challenges with post-breakfast clean-up, resistance from teachers, increased workload for cafeteria and janitorial staff, and classrooms that are not conducive to eating such as science labs and physical education spaces like gyms or athletic fields. These challenges are minimal compared with the long term educational, social, economic, and health benefits that will be afforded to the students who participate in the program.

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**TABLE 3.1: PERCENTAGE OF SCHOOLS WITH BREAKFAST AFTER THE BELL PROGRAMS (NO KID HUNGRY NC, 2021)**

<b>County</b>	<b>Overall BAB Implementation</b>	<b>Breakfast in the Classroom</b>	<b>Grab and Go</b>	<b>Second Chance</b>
Cleveland	3%	3%	0%	0%
Edgecombe	57%	43%	7%	7%
Lenoir	71%	47%	12%	65%
Rutherford	84%	53%	11%	26%
Watauga	40%	0%	30%	10%
Wilson	67%	58%	0%	8%

**TABLE 3.2: BREAKFAST AFTER THE BELL PROGRAM BUDGET**

<b>Description</b>	<b>Cost per unit</b>	<b>Number of units</b>	<b>Total Cost</b>	<b>Source</b>
Food service assistant, 1 per school, 50% FTE (Includes salary, fringe benefits, and health insurance)	\$18,077.40	12	\$216,928.80	NC Office of Human Resources, n.d.
Cleaning supplies and trash bags	\$35 per month per classroom	6000	\$210,000	American Federation of Teachers (AFT), 2017
Bags for meals	\$20 per month per school	120	\$2400	AFT, 2017
Carts on wheels, 2 per school	\$90 each	24	\$2160	AFT, 2017
Large coolers, 3 per school	\$80 each	36	\$2880	AFT, 2017
Kiosk, 1 per school	\$3000	12	\$36,000	AFT, 2017
<b>GRAND TOTAL</b>			<b>\$491,968.80</b>	

**FIGURE 3.1: SOCIO-ECOLOGICAL MODEL**



APPENDIX 3.1: USDA BREAKFAST METHOD FACT SHEETS

## Traditional Breakfast



- Eating in a familiar setting for students who already eat school lunch prepares students for a good morning start.
- Cafeteria is already set up for large flow of students in one location.
- It requires no special transportation or packaging of foods; conducive to serving hot food options.

### Fact Sheet

Who:	Meet with key decision makers at your school to initiate the program. Obtain approval and support from administrator, principal, teachers and food service staff. Staff at each school receives training for set-up and implementation.
What:	A traditional plated breakfast served cafeteria-style.
When:	Before school starts.
Where:	Breakfast served, like lunch, in the cafeteria.
	To increase participation in the breakfast program.
Why:	Provides a nutritious meal to students.
	Allows students to eat with siblings or friends.
How:	Students follow lunchtime flow for food pick up and seating.

Will this work for my school? Circle YES/NO after each of the following statements to determine if Traditional Breakfast will work for your school

1.	School busses arrive early enough to allow time in the cafeteria.	YES	NO
2.	Non-bussed students can arrive at school in time to participate in a cafeteria meal.	YES	NO
3.	Staff is available and willing for morning service.	YES	NO
4.	Cafeteria is available for use/not in use for other purposes before school.	YES	NO
5.	Cafeteria is centrally located for ease of service.	YES	NO
6.	Centralized ticket punching/money collection will work for breakfast.	YES	NO
7.	Teachers are likely to eat breakfast with students.	YES	NO
8.	Cafeteria is large enough to serve potential participants.	YES	NO
9.	Parents/students in this area expect hot foods for breakfast.	YES	NO

## Breakfast in the Classroom



- Breakfast in the classroom provides nutritious meals to students who do not have time to eat breakfast before school.
- Children can look forward to a good breakfast in the comfort of the familiar surroundings of their classroom.
- If the cafeteria is too small, crowded or in use, more students can eat a good breakfast when served in the classroom.

### Fact Sheet

Who:	Meet with key decision makers at your school to initiate the program. Obtain approval and support from administrator, principal, teachers and food service staff. Staff at each school receives training for set-up and implementation.
What:	A bagged breakfast or individually wrapped servings of breakfast components, served in the classroom, to offer students an opportunity to eat breakfast they may have missed.
When:	During announcements or morning break time.
Where:	Breakfast will be delivered to the classrooms in carts or picked up in the cafeteria by student representatives from each class.
Why:	To increase participation in the breakfast program. Increases speed and convenience of service. Provides a nutritious meal to students.
How:	The cart contains prepacked bags or individually wrapped, reimbursable breakfast components. Teachers record meals when served to the students.

Will this work for my school? Circle YES/NO after each of the following statements to determine if Breakfast in the Classroom will work for your school

1. School buses arrive at school just in time for school to begin.	YES	NO
2. Classrooms and the kitchen are on the same floor or have accessibility ramps.	YES	NO
3. Classroom schedules are flexible enough to incorporate breakfast into the day.	YES	NO
4. Food Service staff is willing to help with new breakfast option.	YES	NO
5. Your principal is usually open to new ideas and change.	YES	NO
6. Cafeteria is small and crowded.	YES	NO
7. There are one or more areas in the building where breakfast could be distributed.	YES	NO
8. Teachers realize the importance eating breakfast has to the learning process.	YES	NO
9. Cafeteria is centrally located for ease of service.	YES	NO

## Grab 'n' Go Breakfast



- Grab 'n' Go breakfasts are convenient. They take less time to prepare than most traditional breakfast meals and decrease long lines.
- A bagged breakfast can be enjoyed on the go, during break or during 1<sup>st</sup> period.
- Secondary students like Grab 'n' Go breakfast for opportunities to eat at different locations and times.

### Fact Sheet

Who:	Meet with key decision makers at your school to initiate the program. Obtain approval and support from administrator, principal, teachers and food service staff. Staff at each school receives training for set-up and implementation.
What:	A bagged breakfast or individually wrapped servings of breakfast components can be served before school or during a break. Students will have the choice of a fast, nutritious breakfast.
When:	Before school, during morning break or 1st period.
Where:	Position mobile carts or tables at school entrance or high traffic areas.
Why:	To increase participation in the breakfast program. Increases speed and convenience of service. Provides a nutritious meal to students.
How:	The cart/table contains prepared breakfast choices. Bags are individually wrapped reimbursable breakfast meals. Promote with Grab 'n' Go posters, especially at pick up points.

Will this work for my school? Circle YES/NO after each of the following statements to determine if Grab 'n' Go will work for your school.

1. Participation in the breakfast program is significantly lower than lunch.	YES	NO
2. Food carts are available or space exists for placement of tables in entrances for "curbside" services.	YES	NO
3. Teachers realize the importance eating breakfast has to the learning process.	YES	NO
4. Breakfast needs to be served faster and serving areas need to be more accessible.	YES	NO
5. Students already grab soft drinks and snacks from vending machines as they rush to class.	YES	NO
6. Additional labor hours are not available.	YES	NO
7. Flexibility is needed in scheduling serving times.	YES	NO
8. Meal payment system does not require cash at point of service.	YES	NO
9. Congestion in cafeteria dining room needs to be reduced.	YES	NO

## Breakfast After 1<sup>st</sup> Period



- Breakfast served following the first instructional period provides students a nutrition break.
- Students who ate little at home may be hungry again by this time.
- A mid-morning breakfast gives students a nutritious choice versus vending machine items or a non-reimbursable milk break.

### Fact Sheet

Who:	Meet with key decision makers at your school to initiate the program. Obtain approval and support from administrator, principal, teachers and food service staff. Staff at each school receives training for set-up and implementation.
What:	The nutrition break creates a way for students to eat a meal that was missed or inadequate earlier in the day.
When:	Between the first and second class period.
Where:	Use mobile carts or tables in a centrally located area where students are changing classes.
Why:	To increase participation in the breakfast program. Increases speed and convenience of service. Provides a nutritious meal to students.
How:	The meal provides a nutrition break to students as they move through the hall to their next class. The pre-packaged items need to be hand-held and easy to eat and can be served in the cafeteria or from Grab 'n Go locations.

Will this work for my school? Circle YES/NO after each of the following statements to determine if Breakfast After 1st Period will work for your school

1. There is flexible class scheduling to accommodate a breakfast break.	YES	NO
2. Class schedule was changed to have students arrive earlier than previous year.	YES	NO
3. Principal has expressed interest in providing better nutrition for students.	YES	NO
4. Students already grab soft drinks and snacks from vending machines as they rush to class.	YES	NO
5. Your principal is usually open to new ideas and change.	YES	NO
6. Cafeteria is small, crowded or in use.	YES	NO
7. There are one or more areas in the building where breakfast could be distributed.	YES	NO
8. Teachers realize the importance eating breakfast has to the learning process.	YES	NO
9. Cafeteria is centrally located for ease of service.	YES	NO

## Breakfast on the Bus



- Breakfast handed brown bag style to students as they step on the bus.
- Students that ride the bus for long periods of time have time to eat breakfast.
- Hand held breakfast can be enjoyed before arriving at school.

### Fact Sheet

Who:	Meet with key decision makers at your school to initiate the program. Obtain approval and support from administrator, principal, teachers and food service staff. Staff at each school receives training for set-up and implementation.
What:	A bagged hand-held breakfast will give students a choice for getting them the nutrition they need before school starts.
When:	While riding the bus to school.
Where:	School food service will take bins filled with bagged breakfasts to bus depot before routes begin in the morning.
Why:	To increase participation in the breakfast program. Increases speed and convenience of service. Provides a nutritious meal to students.
How:	The bagged meal provides a nutrition break to students as they enter the bus for the ride to school. The pre-packaged items need to be hand held and easy to eat. Students should be instructed to throw trash away before leaving the bus.

**Will this work for my school? Circle YES/NO after each of the following statements to determine if Breakfast on the Bus will work for your school**

1.	Bussing service is flexible and open to accommodating breakfast while en route to school.	YES	NO
2.	Students spend more than 15 minutes riding the bus and do not arrive in time to participate in the traditional breakfast.	YES	NO
3.	Bussing and class schedule are not flexible.	YES	NO
4.	Principal has expressed interest in providing better nutrition for students.	YES	NO
5.	Equipment and food service labor is available to prepare breakfasts for early morning pick-up.	YES	NO
6.	Trash removal procedures can be adapted to a bus serving site.	YES	NO
7.	Meal payment system does not require cash at point of service.	YES	NO
8.	Food service manager is willing to accommodate menu for pre-packaged foods.	YES	NO
9.	Parents have requested an option for their children who do not arrive at school in time for breakfast.	YES	NO



## Implementation and Evaluation Plan

### Intervention summary

Education access and quality is an important Social Determinant of Health (SDoH) that has important long-term effects on health and well-being, and individuals “with higher levels of education are more likely to be healthier and live longer” (United States Department of Health and Human Services, n.d.). A key aspect of education access and quality is attendance in school, which is related to physical, mental, and social health (Robert Woods Johnson Foundation (RWJF), 2016). Chronic absenteeism, which is defined as being absent from school 10% of more of the school days, or 15 or more days, during the year is linked with serious health issues into adulthood (RWJF, 2016). In Cleveland County, the chronic absenteeism rate in 2018 was 14.34% (Osborne, 2019).

Participation in the federal school breakfast program is positively associated with school performance (Adolphus, Lawton, & Dye, 2013). Increases in the proportion of students who participate in school breakfast have been observed with Breakfast After the Bell (BAB) programs (No Kid Hungry NC, 2021). Chronic absenteeism is also reduced in schools that implement BAB (Kirksey & Gottfried, 2021). At present, only one school in Cleveland County utilizes BAB; information regarding which school is unavailable (No Kid Hungry NC, 2021). The proposed program would expand BAB to the 12 secondary schools in Cleveland County.

In the short term (within 2 years), outcome measures will include the number of secondary schools that implement BAB by start of 2023-2024 school year (No Kid Hungry NC, 2021). Additionally, the net change in the Healthy Eating Index score (diet quality) among secondary school students in Cleveland County will be measured (Bhattacharya et al, 2006). In the long term (5-10 years), outcome measures will include the breakfast gap, which is the difference between the number of free and reduced price (FRP) lunches and FRP breakfasts served (Philbin, n.d.). Marginal food insecurity, defined as at least one affirmative answer on an

18-Item Household Food Security Scale (Appendix 3.2) will be tracked over first 10 years of program (Bartfield & Ahn, 2011).

## **Evaluation plan**

### *Study Design, Data Collection, and Sampling Strategy*

For the purposes of evaluating the long-term outcome of improving the breakfast gap, a non-experimental serial cross-sectional design will be utilized (Centre for Epidemiology and Evidence, 2019). This data collection method is most appropriate since there is no assignment of subjects to an intervention or control group, and the same information is being collected from the target population at set intervals over a ten-year period. The data collected will be quantitative. All school meals that are distributed at secondary schools in Cleveland County will be tracked. This data is already required to be collected by food service personnel at the local school level for the purposes of receiving reimbursement from and maintaining compliance with the national school lunch program (NSLP) (United States Department of Agriculture (USDA), 2017). The County Director of School Nutrition Services will pool this data monthly for analysis.

### *Specific Measures*

School meal service records will be reviewed to determine the number of school breakfasts and lunches that were served. These numbers will be aggregated and analyzed at both the individual school and the county level. The data will be further stratified into three groups by FRP eligibility: not eligible, reduced-price lunch eligible, and free lunch eligible. The breakfast gap ratio, the prevalence of breakfast eaters among those who eat lunch, will be calculated for each group using the equation:

$$\# \text{ of FRP breakfasts served} / \# \text{ of FRP lunches served}$$

A higher breakfast gap ratio is desired as it indicates that the nutritional needs of a larger proportion of this vulnerable population are being met.

### *Analysis Plan and Timing*

Data will be collected daily throughout the school year and analysis will be performed monthly to ensure progress towards the program goal of 70% of FRP eligible students who eat school lunch also eating school breakfast within 10 years (No Kid Hungry, 2022). At present 57.54% of Cleveland County FRP eligible students who participate in school lunch also participate in school breakfast, so improving by 1.25% each year, or 0.125% each month of the school year, will be necessary to meet the goal (No Kid Hungry NC, 2021). Each month, the breakfast gap ratio will be compared to that of the previous month, and the difference between the two will be calculated. If adequate progress is not being made, additional strategies to promote participation can be employed such as contests, challenges, posters, flyers, newsletters, daily announcements, nudges, social media, websites, special guests, and taste tests (No Kid Hungry, 2022).

### *Sources of Funding*

Funding for this program will be derived largely from grant opportunities. Grant funding for these types of programs is available from organizations such as Carolina Hunger Initiative, SNF Equipment, Whole Kids Foundation, The Dairy Alliance, and Salad Bars to Schools (No Kid Hungry NC, 2021). The monies obtained through grants will be allocated towards both startup costs and recurring costs. Startup expenditures will include equipment such as mobile service carts and kiosks, rolling coolers, and additional garbage cans. Recurring costs will include salaries for additional staff, single use packaging, single use utensils, and cleaning supplies. Recurring costs will be covered by remaining grant funds not utilized to cover startup costs as well as reimbursement from the USDA for the school breakfast program. Accurate accounting of meals served will be crucial for securing adequate funding; reimbursement will be \$0.33 for each paid breakfast, \$2.05 for each reduced-price breakfast, and \$2.35 per free breakfast served (Food and Nutrition Services, USDA, 2021). At the time of this writing, all students receive free meals due to the ongoing COVID-19 pandemic, however the nationwide

waivers for universal school meals are set to end June 30, 2022, at which time the tiered structure will go back into effect (USDA, n.d.).

#### *Data Use and Dissemination*

A summary of the data will be synthesized into a yearly report and shared with the school board, health department, and county commissioners. An infographic will also be developed to summarize the data for distribution within the community. The target audience for the infographic will be school-based personnel such as administrators, teachers, and support staff, as well as community members such as students, parents, and taxpayers.

#### *Strengths and Challenges*

Utilization of existing data is a major strength of this evaluation plan. Due to the regulations in place for the national school lunch and breakfast programs, detailed records of the number of meals served are already being collected (USDA, 2017). This will allow for a clear picture of how many students the BAB program ultimately reaches while outcomes such as chronic absentee rate and the healthy eating index will provide insight into the effects of the program on the priority population.

Time constraints at meal times may create challenges for accurate reporting of meals served since a large volume of students will be receiving meals within a short period of time each day (No Kid Hungry, 2022). Waste must also be considered as wasted food can be an indicator that students were not given enough time to eat their food and/or that too much food is being prepared (No Kid Hungry, 2022). In either case, it would be important to adjust accordingly to reduce waste and ensure students are receiving the full benefit of school meals (No Kid Hungry, 2022).

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## APPENDIX 3.2 – HOUSEHOLD FOOD SECURITY SURVEY

*Guide to Measuring Household Food Security -- 2000*

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### U.S. HOUSEHOLD FOOD-SECURITY/HUNGER SURVEY MODULE: 3-STAGE DESIGN (2 INTERNAL SCREENERS)

**Questionnaire transition into module--administer to all households:** These next questions are about the food eaten in your household in the last 12 months, since (current month) of last year, and whether you were able to afford the food you need.

**General food sufficiency question/screener: Questions 1, 1a, 1b** (OPTIONAL: These questions are NOT used in calculating the food-security/hunger scale.) Question 1 may be used as a screener: (a) in conjunction with income as a *preliminary* screen to reduce respondent burden for *higher income households only*; and/or (b) in conjunction with the 1st-stage internal screen to make that screen "more open"--i.e., provide another route through it.

1. [IF ONE PERSON IN HOUSEHOLD, USE "I" IN PARENTHETICALS, OTHERWISE, USE "WE."]

Which of these statements best describes the food eaten in your household in the last 12 months: --enough of the kinds of food (I/we) want to eat; --enough, but not always the kinds of food (I/we) want; --sometimes not enough to eat; or, --often not enough to eat?

- [1] Enough of the kinds of food we want to eat [SKIP 1a and 1b]  
[2] Enough but not always the kinds of food we want [SKIP 1a; ask 1b]  
[3] Sometimes not enough to eat [Ask 1a; SKIP 1b]  
[4] Often not enough [Ask 1a; SKIP 1b]  
[ ] DK or Refused (SKIP 1a and 1b)

- 1a. [IF OPTION 3 OR 4 SELECTED, ASK] Here are some reasons why people don't always have enough to eat. For each one, please tell me if that is a reason why YOU don't always have enough to eat. [READ LIST. MARK ALL THAT APPLY.]

YES NO DK

- [ ] [ ] [ ] Not enough money for food  
[ ] [ ] [ ] Not enough time for shopping or cooking  
[ ] [ ] [ ] Too hard to get to the store  
[ ] [ ] [ ] On a diet  
[ ] [ ] [ ] No working stove available  
[ ] [ ] [ ] Not able to cook or eat because of health problems

- 1b. [IF OPTION 2 SELECTED, ASK] Here are some reasons why people don't always have the quality or variety of food they want. For each one, please tell me if that is a reason why YOU don't always have the kinds of food you want to eat. [READ LIST. MARK ALL THAT APPLY.]

YES NO DK

- [ ] [ ] [ ] Not enough money for food  
[ ] [ ] [ ] Kinds of food (I/we) want not available  
[ ] [ ] [ ] Not enough time for shopping or cooking  
[ ] [ ] [ ] Too hard to get to the store  
[ ] [ ] [ ] On a special diet

**BEGIN FOOD-SECURITY CORE MODULE (i.e., SCALE ITEMS)**

**Stage 1: Questions 2-6 --ask all households:**

[IF SINGLE ADULT IN HOUSEHOLD, USE "I," "MY," AND "YOU" IN PARENTHEICALS; OTHERWISE, USE "WE," "OUR," AND "YOUR HOUSEHOLD;" IF UNKNOWN OR AMBIGUOUS, USE PLURAL FORMS.]

2. Now I'm going to read you several statements that people have made about their food situation. For these statements, please tell me whether the statement was often true, sometimes true, or never true for (you/your household) in the last 12 months, that is, since last (name of current month).

The first statement is "(I/We) worried whether (my/our) food would run out before (I/we) got money to buy more." Was that often true, sometimes true, or never true for (you/your household) in the last 12 months?

- Often true
- Sometimes true
- Never true
- DK or Refused

3. "The food that (I/we) bought just didn't last, and (I/we) didn't have money to get more." Was that often, sometimes, or never true for (you/your household) in the last 12 months?

- Often true
- Sometimes true
- Never true
- DK or Refused

4. "(I/we) couldn't afford to eat balanced meals." Was that often, sometimes, or never true for (you/your household) in the last 12 months?

- Often true
- Sometimes true
- Never true
- DK or Refused

[IF CHILDREN UNDER 18 IN HOUSEHOLD, ASK Q5 - 6; OTHERWISE SKIP TO 1<sup>st</sup>-Level Screen.]

5. "(I/we) relied on only a few kinds of low-cost food to feed (my/our) child/the children) because (I was/we were) running out of money to buy food." Was that often, sometimes, or never true for (you/your household) in the last 12 months?

- Often true
- Sometimes true
- Never true
- DK or Refused



6. "(I/We) couldn't feed (my/our) child/the children) a balanced meal, because (I/we) couldn't afford that." Was that often, sometimes, or never true for (you/your household) in the last 12 months?
- Often true
  - Sometimes true
  - Never true
  - DK or Refused

**1<sup>st</sup>-level Screen** (screener for Stage 2): If AFFIRMATIVE RESPONSE to ANY ONE of Questions 2-6 (i.e., "often true" or "sometimes true") OR response [3] or [4] to Question 1 (if administered), then continue to Stage 2; otherwise, skip to end.

**Stage 2: Questions 7-11** --ask households passing the 1<sup>st</sup>-level Screen: (estimated 40% of hh's  $\leq$  185% Poverty; 5.5% of hh's > 185% Poverty; 19% of all households).

[IF CHILDREN UNDER 18 IN HOUSEHOLD, ASK Q7; OTHERWISE SKIP TO Q8]

7. "(My/Our child was/The children were) not eating enough because (I/we) just couldn't afford enough food." Was that often, sometimes, or never true for (you/your household) in the last 12 months?
- Often true
  - Sometimes true
  - Never true
  - DK or R
8. In the last 12 months, since last (name of current month), did (you/you or other adults in your household) ever cut the size of your meals or skip meals because there wasn't enough money for food?
- Yes
  - No (SKIP 8a)
  - DK or R (SKIP 8a)
- 8a. [IF YES ABOVE, ASK] How often did this happen---almost every month, some months but not every month, or in only 1 or 2 months?
- Almost every month
  - Some months but not every month
  - Only 1 or 2 months
  - DK or R

9. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money to buy food?
- Yes
  - No
  - DK or R
10. In the last 12 months, were you every hungry but didn't eat because you couldn't afford enough food?
- Yes
  - No
  - DK or R
11. In the last 12 months, did you lose weight because you didn't have enough money for food?
- Yes
  - No
  - DK or R

**2<sup>nd</sup>-level Screen** (screener for Stage 3): If AFFIRMATIVE RESPONSE to ANY ONE of Questions 7 through 11, then continue to Stage 3; otherwise, skip to end.

**Stage 3: Questions 12-16** --ask households passing the 2<sup>nd</sup>-level Screen: (estimated 7-8% of hh's < 185% Poverty; 1-1.5% of hh's > 185% Poverty; 3-4% of all hh's).

12. In the last 12 months, did (you/you or other adults in your household) ever not eat for a whole day because there wasn't enough money for food?
- Yes
  - No (SKIP 12a)
  - DK or R (SKIP 12a)
- 12a. [IF YES ABOVE, ASK] How often did this happen---almost every month, some months but not every month, or in only 1 or 2 months?
- Almost every month
  - Some months but not every month
  - Only 1 or 2 months
  - DK or R

[IF CHILDREN UNDER 18 IN HOUSEHOLD, ASK 13-16; OTHERWISE SKIP TO END.]

13. The next questions are about children living in the household who are under 18 years old. In the last 12 months, since (current month) of last year, did you ever cut the size of (your child's/any of the children's) meals because there wasn't enough money for food?
- Yes
  - No
  - DK or R
14. In the last 12 months, did (CHILD'S NAME/any of the children) ever skip meals because there wasn't enough money for food?
- Yes
  - No (SKIP 14a)
  - DK or R (SKIP 14a)
- 14a. [IF YES ABOVE ASK] How often did this happen---almost every month, some months but not every month, or in only 1 or 2 months?
- Almost every month
  - Some months but not every month
  - Only 1 or 2 months
  - DK or R
15. In the last 12 months, (was your child/ were the children) ever hungry but you just couldn't afford more food?
- Yes
  - No
  - DK or R
16. In the last 12 months, did (your child/any of the children) ever not eat for a whole day because there wasn't enough money for food?
- Yes
  - No
  - DK or R

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**END OF FOOD-SECURITY/HUNGER CORE MODULE**

### User Notes

**(1) Response Options:** For interview surveys, DK (“don’t know”) and “Refused” are blind responses--that is, they are not presented as response options, but are marked if volunteered. For self-administered surveys, DK is presented as a response option.

**(2) Internal Screeners:** Two levels of internal screening are provided for survey designers who wish to reduce respondent burden for households not manifesting: (a) *any* level of food insecurity (1st-level screener); or (b) any signs of *hunger* (2nd-level screener). The optional Q1 also may be used in conjunction with the 1st-level screener to provide an additional, independent basis for passing households through the screen (i.e., making the screen somewhat less stringent).

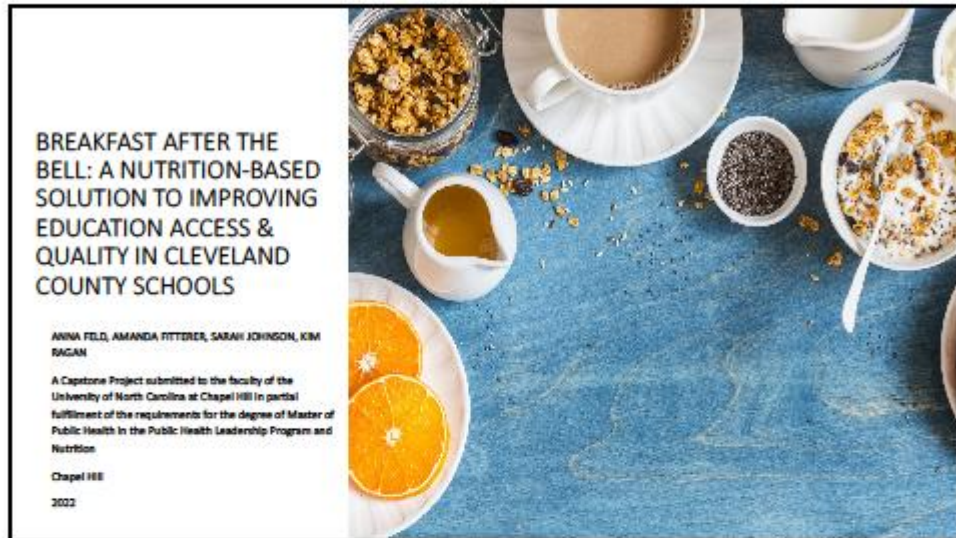
To further reduce burden for higher-income respondents, a preliminary screener may be constructed using Q1 along with a household income measure. Households with income above twice the poverty threshold, AND who respond <1> to Q1 may be skipped to the end of the module and classified as food secure. (This preliminary screen should not be used for lower-income households.) Use of this preliminary screener reduces total burden in a survey with many higher-income households, and the cost, in terms of reduced accuracy in identifying food-insecure households, is slight. Research has shown that a very small proportion of the higher-income households screened out by this procedure will register food insecurity if administered the full module. Consequently, if Q1 is not desired for research purposes, a preferred strategy is to omit Q1 and administer Stage 1 of the module to all households. Administration time for Stage 1 is very nearly the same as administration time for the preliminary USDA food sufficiency question/screener.

**(3) Time Reference Period:** The scale items may be modified from the 12-month reference period to a shorter time period if required for your research design. The CPS food-security database includes 30-day reference periods for the more severe scale items (Q8-Q18) and other surveys have used the core module with reference periods shorter than 12 months. For example, the questionnaire items may be modified from the 12-month period to the 30-day reference period by changing the “last 12-month” reference in each question to “last 30 days.” In this case, items 8a, 12a, and 14a must be changed to read as follows:

8a/12a/14a: [IF YES ABOVE, ASK] In the last 30 days, how many days did this happen?  
\_\_\_\_\_ days  
[ ] DK

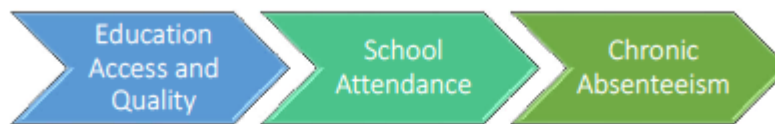
**(4) Food-Security/Hunger Scale:** Questions 2-16 provide a complete, validated set of food-insecurity/hunger indicator variables for use in: (1) scaled measurement of the severity of household food insecurity and hunger; (2) classification of households according to designated severity ranges; and (3) comparison of food-insecurity and hunger prevalence with national benchmark data. See Chapter 3 for detailed guidance on coding household responses and calculating household scale scores and status levels.

## Presentation Slides and Script



Thank you for the opportunity to speak with you today. My name is Amanda Fitterer and I'm joined by Anna Feld, Sarah Johnson, and Kim Ragan. We're very excited to share our plans for Breakfast After the Bell, which is a nutrition-based program aimed at improving education access and quality in the schools in Cleveland County.

## Overview of SDOH in the county



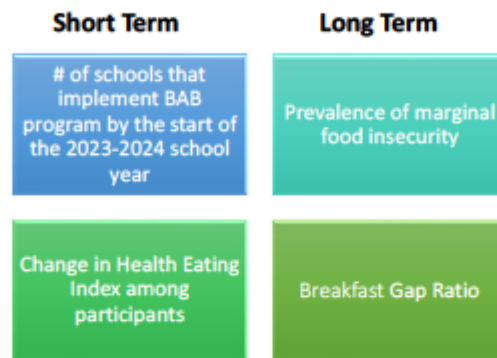
Chronic Absenteeism – miss 10% or more school days during the year

- Cleveland County: 14.34% overall
- Increases between middle and high school in the United States
  - Middle School: 14%
  - High School: 20%
- Racial and ethnic disparities in North Carolina
  - Hispanic: 18.2%
  - Black: 16.3%
  - White: 14.1%
- Students living in poverty more likely to be absent
- Food insecurity is strongly linked with attendance

Robert Wood Johnson Foundation, 2016; Osborne Urquhart, 2019; United States Department of Education, 2016; Allison et al, 2019; Centers for Disease Control and Prevention, 2021

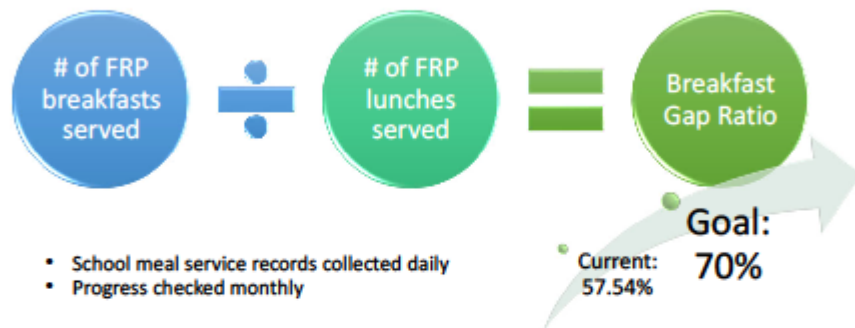
Education access and quality is one of the 5 domains of SDoH and is important because individuals “with higher levels of education are more likely to be healthier and live longer” according to the US dept of Health and Human services. Physical, mental, and social health are directly influenced by attendance in school, therefore ensuring students are able to attend school regularly is crucial. Chronic absenteeism, which is defined as being absent 10% or more school days during the year, is linked with higher rates of diabetes, obesity, and premature death. It is, therefore, important to reduce chronic absenteeism and ensure that students are able to attend school regularly. In Cleveland County specifically, the chronic absenteeism rate in 2018 which was the most recent year for which data is available, was 14.34%. A breakdown by race, ethnicity, and SES is not available for Cleveland County Schools, but disparities are regularly observed at both the state and national level so it is reasonable to expect that similar disparities also exist in Cleveland County. Food insecurity negatively influences, and consumption of a healthful diet positively influences school attendance, so efforts aimed towards addressing food insecurity and diet quality should have a trickle down effect on attendance and school success.

## Program Evaluation



We plan to track the success of the program by monitoring progress towards both short and long-term goals. In the short term, we expect to see at least 75% of secondary schools in Cleveland County implement a BAB program by the start of the 23-24 school year, and within 2 years we expect to see the diet quality of participants improve by 4 points on the Healthy Eating Index. In the long-term, we expect that marginal food insecurity will be reduced by 10% within the first 10 years of the program and the breakfast gap ratio will meet or exceed the FRAC goal of 70%.

## Evaluation Plan



As Anna explained earlier, the breakfast gap ratio is a measure of what portion of FRP eligible students who eat school lunch also eat school breakfast. This will be the primary outcome of interest for this program, and will be tracked and evaluated using school meal service records, which will be an existing data set since the schools are already required to keep records of meals served in order to receive reimbursement from the USDA for the National School Lunch Program. In order to meet the 70% FRAC goal, an improvement of 12.5% will be necessary over the 10 year period. To ensure progress towards this goal, the County Director of School Nutrition Services will analyze school meal service records on a monthly basis. If adequate progress is not being made, additional strategies such as contests, challenges, nudges, taste tests, special guests, and others can be put in place to help promote participation in breakfast. As participation in school breakfast increases, we expect to see corresponding increases in school attendance and school performance, which will have positive long term effects on the health and wellbeing of the students involved.



## **APPENDIX D: SARAH JOHNSON'S INDIVIDUAL DELIVERABLES**

### **Problem Statement**

#### **Social Determinant of Health**

Different conditions in the environments where individuals live, work, and play that affect a wide range of the public's health and overall quality of life are considered social determinants of health (SDoH) (*Healthy People 2030*). Access to quality education represents one of the five main SDoH domains. Improving education access and quality includes increasing educational opportunities and helping children and adolescents perform well in school. (*Healthy People 2030*) An essential aspect of quality education is the number of days children attend school and are able and ready to learn. Focusing on school attendance rates and the children affected the most is one way to address this social determinant of health.

Missing more than 15 or more days of school or chronic absenteeism affects the quality of education and the ability for students to learn in the short term. An individual's nutritional status can impact these rates and the child's overall physical, mental, and social health and wellness (Robert Wood Johnson Foundation, 2016). Living in poverty can also affect a child's brain development (*Healthy People 2030*) and make it difficult for these students to wholly and actively participate in their education. Poor school attendance and poor academic performance can also affect a child's self-esteem, having both short- and long-term implications. When combined with disease prevention, access to quality education can include improved long-term success and prosperity. (*Healthy People 2030*)

#### **Geographical and Historical Context**

Cleveland County is a non-metro area of North Carolina with approximately 100 000 residents. It is located on the state's southwest border between the three major metropolitan areas of Charlotte, Asheville, and Greenville/Spartanburg. The county includes 15 cities and towns situated over almost 500 square miles in the Blue Ridge Mountains. Shelby is the largest city, with a population of over twenty thousand, followed by Kings Mountain, the second-largest

city. The local economy was primarily based on agriculture until the 1960s and included cotton as its primary export, followed by wheat, sweet potatoes, and oats. Since the sixties, manufacturing and distribution have risen in popularity, with more than 40% of the workforce employed by manufacturing companies (About Cleveland County, 2022).

The largest employer in the area is the Cleveland County Schools, a district comprised of 29 schools, including 16 elementary schools, two intermediate schools, four middle schools, five high schools, an alternative school, and one special purpose school (Cleveland County Schools, 2022). Turning Point Academy is a combination of three schools created to maintain an alternative learning program for at-risk students (Turning Point Academy, 2020). A newer option for families is the Cleveland Innovation Academy, a virtual school serving kindergarten through 12th-grade students. Of note, only 66% of households in Cleveland County have broadband internet (National Center for Education Statistics). The county also includes two schools of post-secondary education: Gardner-Webb University, a private 4-year institution, and the Cleveland Community College (Cleveland County Health Department, 2020).

Cleveland County offers different resources for its local children and their families. The Homeless Liaison offers services to homeless youth and their families, including helping students enroll or stay in school and connecting families to community resources for health, transportation, and food. Of note, there are no publicly funded transportation services in the county. To help address the health of school-aged children in the county, a School Health Advisory Council was developed and is made up of representatives from the school system, the local health department, and the community. *(CC Nutrition, Wellness Policy)*

### **Priority Population**

The Cleveland County Schools served 14,293 students during the 2020-2021 school year, with over 4,500 secondary students in grades 9-12. Given that chronic absenteeism rates in the United States drastically spikes in high school for every race and ethnicity, focusing on the high school students in Cleveland County will be a priority. Nationally, it has also been

shown that rural schools, like those in Cleveland County, have higher absence rates (15.1%) compared to suburban schools (13.4%) (US Dept of Education, 2017).

Only 88% of high school students graduated on time in Cleveland County. Studies have shown that even one year of chronic absenteeism in high school was associated with a seven-fold increase in dropping out of school (US Dept of Education, 2017). In Cleveland County, 67% of students qualified for free or reduced lunch in 2015, and 58% participated in the meal programs in the 2018-2019 school year. This is important when considering that nutritional status and overall health have been shown to be associated with school attendance. Studies have also shown that students from food secure households were 57% less likely to be absent from school (Tamiru, 2017).

### **Measures of the Problem Scope**

Education outcomes in Cleveland County are lagging behind the state and country averages. In Cleveland County, only 16.5% of the population are college graduates, compared to North Carolina's higher rate of 21.3%. Access to quality education affects all measurements of academic success. It can be argued that one factor contributing to Cleveland County's access to quality education is the school attendance of its children. School attendance data shows that North Carolina and schools in Cleveland County have higher chronic absentee rates than similar areas of the country. North Carolina has a chronic absentee rate of 14.8%, which is the highest of all surrounding states: South Carolina's rate is 11.3%; Virginia and Tennessee both have rates of 13.8%, and Georgia's rate is 12.5%. Of note, North Carolina is one of few states that did not include chronic absence in its Every Student Succeeds Act (ESSA) plan.

North Carolina also demonstrates similar differences in chronic absentee rates by age groups: 11.2% for elementary, 14.4% for middle school, 21.2% for high school students. While the district of Cleveland County has a chronic absence rate of 14.34% of its total school population (Urquohart, 2017), Cleveland County's high schools also have higher absentee rates than the district average. Crest High in Shelby has a chronic absentee rate of 29.9%, and

Shelby High has a rate of 26.8% (Office of Civil Rights, 2017). There are also racial and ethnic disparities in the rates of demographics who miss school. Nationally, black students miss school chronically at a rate of 16.3%, and Hispanic students are absent at a rate of 18.2%. These numbers are significant compared to white students whose chronic absentee rates fall at 14.1% (Office of Civil Rights, 2017).

### **Rationale and Importance of Access to Quality Education**

Increasingly, school attendance is used as an early warning signal and a key indicator for measures like third-grade reading proficiency and high school graduation rates. (Urquhart, 2018) Children in Cleveland County have higher absentee rates than similar areas of the country and lower education measures like those mentioned previously. Addressing the factors behind chronic absenteeism in high school students will improve graduation rates, thereby increasing opportunities for teenagers in Cleveland County to pursue post-secondary education.

### **Disciplinary Critique**

Public health leaders should recognize the far-reaching, detrimental effects of inaccessibility to quality education on children. By addressing the social determinants that can affect a child's education, public health leaders have an opportunity to set those most affected by chronic absenteeism on a different course. Improved school attendance and thus schoolwork or the quality of education result from many contributing factors, with notable associations to overall well-being, health, and nutritional status. Currently, there are no initiatives to address the factors and inequities surrounding chronic absentee rates in Cleveland County. By engaging stakeholders and community members, public health leaders can design school-based programming to address chronic absenteeism's root causes and improve academic success. Focusing on these students and giving children equal starts in terms of health, nutrition, and education will have a lifelong impact on economic stability, preventing chronic illness, and overall quality of life.

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**TABLE 4.1: CLEVELAND COUNTY HEALTH PROFILE (2019)**

<b>Demographics</b>	<b>Population – Cleveland County</b>	<b>97,947</b>
	White, non-Hispanic	72.8%
	Hispanic/Latinx	3.8%
	African American	20.8%
	Asian	1.1%
	American Indian	0.4%
<b>Education</b>	College Graduation ( <i>Bachelor’s degree or higher</i> )	16.5%
	High School Graduation	88%
	Reading Proficiency ( <i>% of third-grade students reading at grade-level</i> )	57.7%
<b>Health Care</b>	Uninsured children	5.2%
	Medicaid and CHIP enrollees	35.5%
	Primary Care Physicians ( <i>per 10,000 population</i> )	6.2
<b>Community Well-Being</b>	Poverty ( <i>100% federal poverty level</i> )	19.0%
	Food Insecurity	16.2%
	Low access to grocery store	16.7%
	Life expectancy	74.6

**TABLE 4.2: DEMOGRAPHICS OF CLEVELAND COUNTY HIGH SCHOOLS, 2020-2021 SCHOOL YEAR (OCR)**

<b>School</b>	<b>Total Students</b>	<b>% Male</b>	<b>% Female</b>	<b>% White</b>	<b>% Black</b>	<b>% Hispanic</b>	<b>% Asian</b>	<b>% Two or More Races</b>
<i>Total School District</i>	14,222	--	--	73%	21%	4%	1%	1%
<i>Kings Mountain High</i>	1,152	52%	48%	68.1%	19.4%	4.8%	1.1%	6.6%
<i>Crest High (Shelby, NC)</i>	1,142	51.4%	48.6%	66.3%	21.2%	6.3%	0.2%	6.0%
<i>Shelby High</i>	811	52.4%	47.6%	38.6%	49.0%	8.5%	0.7%	3.0%
<i>Burns High (Lawndale, NC)</i>	915	51.6%	48.8%	73.2%	15.8%	7.3%	0.4%	3.0%
<i>Turning Point Academy (Shelby, NC)</i>	105	76.2%	23.8%	33.3%	50.5%	4.8%	0%	11.4%



## **Stakeholder Analysis**

### **Key Issue**

Cleveland County was most recently ranked 80th out of 100 counties in North Carolina in the state's overall health rankings (Cleveland County Department of Health, 2020).

Contributing to these rankings was the significant impact chronic disease had on the county's mortality rate. Many things influence these chronic health conditions, including educational levels and lifestyle factors like nutrition. Addressing these factors and conditions that impact people's daily lives, or Social Determinants of Health (SDoH), can improve the county's overall health. An impactful timeframe to focus on these changes is when children are of school age.

One specific SDoH is Education Access and Quality, which the CDC has defined as increasing educational opportunities and ensuring adolescents do well in school (Healthy People, 2030). Children need to attend school regularly to achieve academic success (RSJF, 2016). However, in the Cleveland County Schools (CCS), the absenteeism rate, defined as missing more than 15 days of school in a year, was 14.34% (Osbourne, 2019). Ensuring all children have the same chances to experience academic success, leading to healthier and happier lives (Healthy People, 2030), will require interventions to address the factors that affect these opportunities.

### **Program Intervention**

Certain factors in a school environment have been shown to positively improve attendance and influence health and academic achievement (Healthy Youth, CDC). One of those factors is participation in school breakfast. This school-based meal has been shown to positively affect school performance and attendance (Andreyeva & Sun, 2021). However, only 38% of CCS students who qualify for free and reduced-price (FRP) meals participate in breakfast (No Kid Hungry, 2020). A specific program, Breakfast After the Bell (BAB), has improved school breakfast participation and reduced chronic absenteeism among high school

students (Kirskey & Gottfreid, 2021). BAB is an innovative breakfast model that only 3% of schools in Cleveland County currently utilize.

This transformational program would provide free breakfast to the 12 secondary schools in Cleveland County through the Community Eligibility Provision (CEP). These students would be offered food through one of three different breakfast delivery methods. Each school will have the opportunity to identify which BAB method would be best for their students, likely based on staffing, school layout, and stakeholder input. The short- and long-term impacts of BAB look to improve diet quality and reduce food insecurity among CCS students. First, it aims to increase the number of schools in Cleveland County that have fully implemented the program by at least 75% by the start of the 2023-2024 school year. Second, it aims to improve the ratio of students who participate in breakfast compared to lunch.

### **Stakeholder Analysis**

Engaging a wide range of stakeholders will be vital to implement this innovative breakfast program effectively. Two different models were used to analyze these internal and external stakeholders. First, the STE(E)P Scan (Appendix 4.1) helped identify stakeholders from different social, technical, economic, environmental, and political contexts in and around Cleveland County to address an innovative breakfast model in the school system. The power analysis grid (Table 4.3) then helped delineate each stakeholder's interest in, power over, and influence on the implementation of the BAB program.

One key stakeholder will be the Cleveland County Commissioners. This group of five elected individuals consists of Chairman Kevin Gordon, Vice Chairman Deb Hardin, and three other commissioners. The Commissioners' current focus area of citizen engagement includes expanding programs that provide opportunities for youth, including healthy lifestyle coaching. One of their 2021-2022 goals is to identify health disparities and improve the health rankings in Cleveland County. (Cleveland County Strategic Goals, 2021) These strategies will be essential to note when engaging with these stakeholders. They will ultimately decide if the BAB program

will be allotted resources and implemented in the Cleveland County Schools. Since they are the key decision-makers, their power and interest are both high, and this group will need to be highly engaged at the beginning of the process to convince them of the program's potential.

The middle and high school students of Cleveland County are the primary stakeholders as they will be the main beneficiaries of the BAB program. The parents and caregivers of these students will also be primary stakeholders as their families will be directly affected by an improvement in school attendance, academic performance, and overall food security status. Students and their families from the different middle and high schools of varying grade levels, demographic, and free- and reduced-lunch status will be vital to engage as they can provide valuable insight into current attitudes surrounding school breakfast. As their food security status and academic achievement are the overall anticipated outcomes of BAB, the students will have a significant interest in this program's ability to improve their nutrition. The students and parents or caregivers will be engaged throughout the process to gather insights on the best strategies for the successful implementation of BAB.

Secondary stakeholders that will be important to engage initially include the CCS Food Services Director, Jada Brown, the Child Nutrition Supervisor, Nancy Jones, RD, and the Cleveland School Health Advisory Council, represented by Anita Ware. These stakeholders will provide necessary guidance on the current state of food services and nutrition initiatives within the school system. They already have a vested interest in nutrition programs and will be vital advocates to educate on the BAB initiative to speak in favor of the program. In addition, these stakeholders will guide the planning and implementation stages of the program, along with each school's Food Services Manager, as a new and expanded school nutrition program will require more time, effort, and resources than they currently possess.

Additional secondary stakeholders include the Cleveland County Health Department (CCHD) and each School Leadership Team (SLT). The CCHD will be necessary to align with regarding program goals and objectives, and they will be able to provide county-wide outcome

metrics. The SLT consists of people at each school who implement school-based programs to enhance student achievement. This team consists of administrators, teachers, support staff, students, business leaders, and parents and will initially be influential advocates for the BAB program. They will provide a diverse and comprehensive perspective when each school determines which method of BAB to implement. The teachers in the group will be directly affected by the program, as students eating breakfast in class will be a change from the current practice and have the potential to disrupt classroom activities. Finally, neighboring Rutherford County implemented a successful BAB program and will provide valuable insight into their achievements, outcomes, and program implementation strategies during the initial stages of the program development as schools decide which model will work best for their students.

The Breakfast After the Bell program is a robust public health intervention that has been proven to reduce food insecurity and improve school attendance, conditions that lead to better education quality and access. Implementing this program will require the targeted engagement of a diverse group of stakeholders to ensure success and benefit for the students of Cleveland County.

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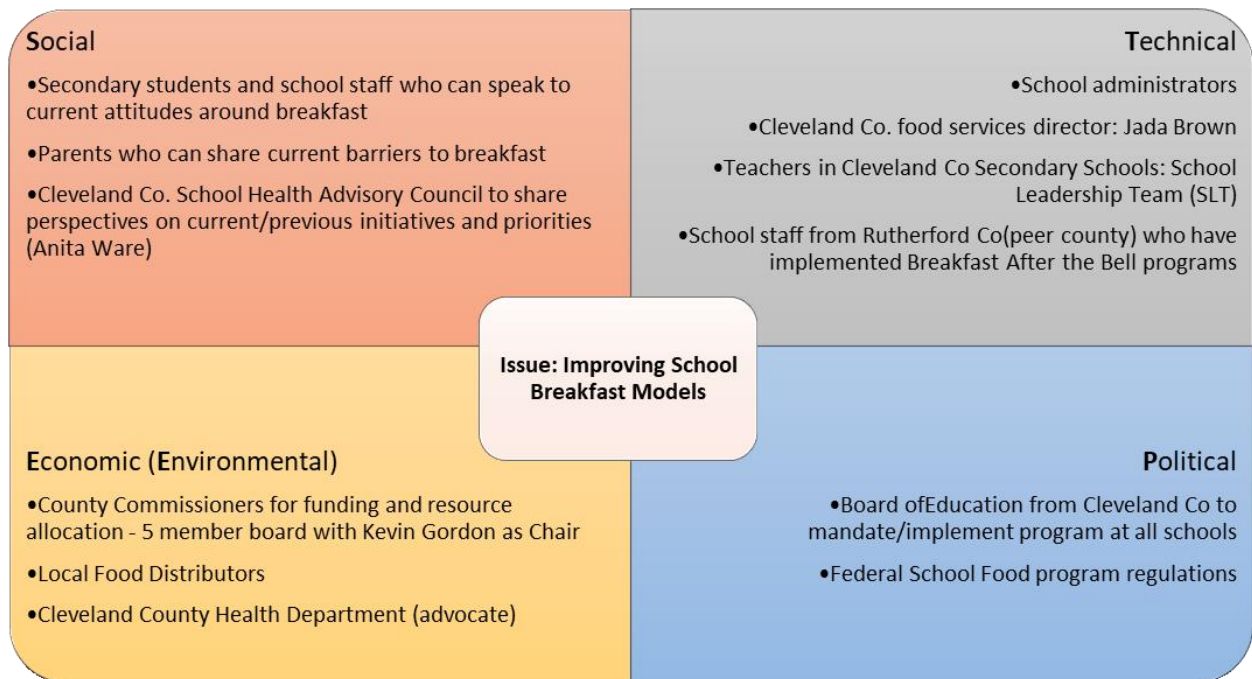
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**TABLE 4.3: IMPACT/POWER ANALYSIS**

Stakeholder Role	Stakeholder(s)	Key Interests	Power / Influence on Project	Importance to Program
<b>Key Stakeholders</b>				
Cleveland County Commissioners	Chair, Kevin Gordon Vice Chairman, Deb Hardin Commissioners Johnny Hutchins, Ronnie Whetstine, Doug Bridges	<ul style="list-style-type: none"> <li>Deciding on program/policy to implement to improve health of Cleveland County</li> <li>Fiscal responsibility</li> </ul>	High. Will provide overall decision as to whether program is implemented	High
<b>Primary Stakeholders</b>				
Secondary Students	Students from Kings Mountain High, Shelby High, Crest High	<ul style="list-style-type: none"> <li>Boosting academic achievement</li> <li>Nutrition programs designed for them to participate in</li> </ul>	High. Students should provide key testimony to identify current barriers and interest in BAB program and ongoing feedback regarding program	High. As the main beneficiaries, their input will be of utmost importance to the program design and implementation
Parents / Caregivers	Secondary school parents and primary caregivers of students who participate in school food programs	<ul style="list-style-type: none"> <li>Improving nutrition and academic outcomes for their children</li> <li>Family directly affected by improved school attendance, health, and school performance</li> </ul>	High	Moderate. Can provide important anecdotal stories of how BAB will positively affect their families
<b>Secondary Stakeholders</b>				
Teachers	School Leadership Team (SLT)	<ul style="list-style-type: none"> <li>Implement school-based management to enhance student achievement</li> </ul>	Low	Moderate. Will need to be advocates of program and speak to educational aspect as well as give input during implementation as BAB will

				potentially affect classroom time.
School Health Advisory Council	Anita Ware, Chair	<ul style="list-style-type: none"> <li>Committed to improving nutrition in CC schools</li> </ul>	Moderate	High. Crucial advocates for program.
Cleveland County School Nutrition Services Director	Jada Brown	<ul style="list-style-type: none"> <li>Having a new program will change her operations</li> <li>Expanding food services will require more time/resources</li> </ul>	Moderate	High
Food Service / Cafeteria Manager	Representatives from each school	<ul style="list-style-type: none"> <li>Having a new program will change their operations</li> <li>Expanding food services will require more time/resources</li> </ul>	Moderate	High
Child Nutrition Supervisor (Cleveland Co Schools)	Nancy Jones, RD	<ul style="list-style-type: none"> <li>Program goals will need to align with</li> </ul>	Moderate	Moderate
Facilities Staff	Representatives from each school	<ul style="list-style-type: none"> <li>Interests in school grounds and increase in demand from program</li> </ul>	Low	Low. Will need to be involved during later stages of program implementation and logistic planning.
Cleveland County Health Department		<ul style="list-style-type: none"> <li>Aligning their strategic goals with school system</li> <li>Improving overall health of CC students will affect health of entire county</li> </ul>	Moderate	Moderate
Rutherford County Schools Food Services Director		<ul style="list-style-type: none"> <li>Experience in successful implementation of Breakfast after Bell programs</li> <li>Will have insights during beginning program planning stages for CC food services director</li> </ul>	Low	Low. Will be good resource to connect to Cleveland Co food services managers to initially help to identify positives and impact of program

## APPENDIX 4.1: STE(E)P SCAN – STAKEHOLDER IDENTIFICATION





## **Engagement and Accountability Plans**

### **Engagement Plan**

#### **Statement of Purpose**

The innovative Breakfast After the Bell (BAB) school nutrition program will be implemented in at least 75% of Cleveland County Schools (CCS). This breakfast delivery model will improve CCS students' access and quality of education by reducing chronic absenteeism and improving each student's readiness to learn (Robert Wood Johnson Foundation, 2016). BAB programs in North Carolina have also improved school attendance and graduation rates and decreased food insecurity among high-risk families, leading to an overall positive change in educational attainment and future health outcomes (Alison, 2019) (Bartfeld, 2011).

#### **Summary of Proposal and Rational Engagement Plan**

An engagement plan identifies the tools, technologies, and communication strategies utilized when working with stakeholders. To assist with the development of this plan, the RASCI matrix (Appendix 4.2) was first completed to outline each stakeholder's general, expected responsibilities. A power-analysis grid (Appendix 4.3) then evaluated where each stakeholder would fall on the interest-influence spectrum. By defining different groups of stakeholders this way, engagement strategies will be tailored to each group's specific needs. To be successful, the consultants for the BAB program will need to work with each stakeholder group in ways that will elicit their expertise and knowledge. Engaging stakeholders can be done partly by using the Give-Get Grid (Table 4.4) to explain to each stakeholder how their contributions to the program will benefit the outcomes and highlight the benefits of providing their expertise.

In addition, it will be essential to build relationships with each stakeholder group that will facilitate inclusive environments where participants feel valued and welcome to share their feedback. Stakeholders involved in the engagement plan include school administrators and board members, teachers and school staff, secondary students and their families, and community members invested in the betterment of the CCS. After completing the initial

engagement strategies, those responsible for the program, the School Nutrition Services department, will need to be empowered to design and implement the BAB program by incorporating the gathered stakeholder feedback directly and thoughtfully.

### **Engagement Methods**

As outlined in Table 4.5, BAB engagement activities will be driven by the stakeholders most directly affected by the program: Cleveland County secondary students and their families. In addition, the school system will hire consultants from the Cleveland County Health Department (CCHD). To ensure these voices are at the core of program decisions, the initial engagement activities will include surveys, town-hall like forums, and small group discussions. To reduce barriers to participation, surveys will be handed out at schools and in-person and online platform meeting opportunities will be offered. In-person discussions will be held directly after school, on the weekends, and in the evenings at schools and local community centers. Initial interviews and discussions with students and families will help identify the current barriers to breakfast consumption and general thoughts about how to best increase the number of students who eat breakfast within the larger context of the BAB program. Specifically, students will vote on which arm of the BAB program they would like in their school: Grab-and-Go, Breakfast After the Bell, or Second Chance Breakfast.

Engagement activities with students and parents will also provide an opportunity to understand current belief systems surrounding the benefits of breakfast and how it relates to academic performance and attendance. During the program, students will work with the Nutrition Services staff to help decide menu choices and be able to provide written feedback in comment boxes placed throughout the schools. In addition, parents and caregivers will receive paper and online surveys to give feedback regarding effectiveness after the program has been implemented, along with program evaluation feedback towards the end of each school year.

The School Nutrition Services department will be responsible for executing the breakfast program in each school. To do this effectively, they will need to stay informed of primary

stakeholders' feedback to design a program that will benefit the secondary students. The Director will gather survey and discussion feedback from the CCHD consultants and disseminate this information to school administrators and the School Health Advisory Council (SHAC). These individuals will guide health- and school-specific logistics surrounding BAB program implementation to the Nutrition Services Director. After the program has been implemented for a semester, the School Nutrition Services department will also work directly with the Cleveland County Public Health department to provide data on program use. School administrators and the SHAC will be kept up to date on program happenings through emails of decreasing frequency during the program.

School staff, including teachers, will need to be kept apprised of each step of the program as these stakeholders can be significant influencers on student participation. Teachers will be initially informed of the program in school-wide meetings where they will have the ability to ask questions and then emailed FAQs and a survey to provide initial thoughts and concerns prior to implementing the program. Teachers will also have a voice in the decision surrounding which arm of the BAB program a school decides to implement.

## **Accountability Plan**

### **Memorandum of Understanding**

#### **1.0 Purpose**

The purpose of this Memorandum of Understanding (MOU) is to develop and foster a partnership that promotes the development of an innovative breakfast program for secondary students through their respective schools. Cleveland County Schools Nutrition Services will be responsible for implementing the Breakfast After the Bell (BAB) program with guidance and input from the Health Department.

#### **2.0 Partnership Principles**

The work of the Health Department and School Nutrition Services will adhere to the following *principles*:

- 2.1 Promote co-learning about school nutrition and BAB program needs
- 2.2 Respect the unique nature of each partner and the contribution of each partner.
- 2.3 Establish clear and open communication by striving to understand each other's needs and interests, and potential contributors.

### **3.0 Goals**

- 3.1 Increase breakfast consumption among secondary students
- 3.2 Improve diet quality among Cleveland County secondary students
- 3.3 Expand the number of schools who offer breakfast programs to students.
- 3.4 Improve ratio of students who participate in school breakfast programs compared to school lunch programs

### **4.0 Activity Agreements**

The activities implemented under this MOU will adhere to the following principles:

- 4.1 Contribution of resources will improve the work of all parties.
- 4.2 Joint efforts will have a population-health orientation and work to promote equity and the social determinants of health that affect academic access and quality.
- 4.3 Execution of school nutrition programs in the school systems shall continue to be the sole responsibility of the School Nutrition Services.
- 4.4 Both the Health Department and the School Nutrition Services shall retain the exclusive right to appoint their respective staff.
- 4.5 Health Department will provide subject matter expertise as needed while the school district designs and implements nutrition programs.
- 4.6 School Nutrition Services will coordinate with local staff and existing programming in the schools.
- 4.7 School Nutrition Services will verify commitment from Health Department annually.

- 4.8 Stakeholders will participate in annual meeting to reconvene on goals and data collection to look forward for following school year.

### **5.0 Scope of Activities**

- 5.1 School Nutrition Services will implement BAB program to all secondary schools with program evaluations completed annually.
- The Health Department will support the Cleveland County Schools nutrition programs from a public health lens when requested.
- 5.2 School Nutrition Services will provide data to the Health Department to assist with research and educational materials, publications and academic information including:
  - a. Online documentation and support system to annually evaluate school's BAB and nutrition initiatives
  - b. Organization and participation in seminars, symposia, short-term academic programs, and academic meetings to increase school-based nutrition services awareness and effects on social determinants of health.
  - c. Discussion of potential community health initiatives, case studies and public health issues in the community at research meetings.

### **6.0 Renewal, Termination, and Amendment**

- 6.1 This MOU will remain in effect for a period of one year from the date of the last signature. This MOU may be extended by the written consent of the parties.
- 6.2 This MOU may be terminated by either party by giving written notice to the other party at least 180 days in advance of the stated termination date.
- 6.3 Prior to the completion of the initial term of this MOU the Health Department and School Nutrition Services Director will assess the impact and effectiveness of this partnership and report their recommendations for future agreements to each party respective governing entity.

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**TABLE 4.4: GIVE-GET GRID**

Stakeholder	Contributions to Program	Benefits from Program
<b>Students and Parents</b>	<ul style="list-style-type: none"> <li>• Guidance surrounding current barriers to breakfast in schools</li> <li>• Transparency and honest feedback throughout program implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Improved student school performance</li> <li>• Reduced food insecurity for students</li> <li>• Access to knowledge from other stakeholders</li> <li>• Incentives for participation in engagement events</li> </ul>
<b>Cleveland County School Nutrition Department</b>	<ul style="list-style-type: none"> <li>• Subject matter experts surrounding school meals</li> <li>• Guidance to complexities of program implementation in each school</li> <li>• Effective communication between program staff</li> </ul>	<ul style="list-style-type: none"> <li>• Improved partnerships and working relationships between schools</li> <li>• Able to contribute to growing literature about benefits of school nutrition programs</li> </ul>
<b>Public Health Department</b>	<ul style="list-style-type: none"> <li>• Dedication to public health issues including decreasing chronic absenteeism and improving school performance</li> <li>• Expertise in stakeholder and community engagement</li> </ul>	<ul style="list-style-type: none"> <li>• Improved public health and overall wellness of</li> <li>• Decreased food insecurity levels for community – alignment with strategic plan</li> </ul>

**TABLE 4.5: METHODS OF ENGAGEMENT**

Name of stakeholder organization, group, or individual	Potential role in the activity	Engagement Strategy	Follow-up strategy
<b>Secondary students and families</b>	Essential to success of the program	<p><i>Involve, collaborate, and empower.</i></p> <p>Small group and town hall-style discussions both in-person after school and in an online forum like Zoom.</p> <p>Surveys for students to take home for parents that are unable to attend discussions.</p> <p>In-school discussions for student groups to participate in.</p>	Mailed surveys once during the program and towards the end of the school year. In-school comment box for menu changes or general feedback. Student-led menu decisions
<b>School nutrition services department/director</b>	Leading program implementation	<p><i>Consult and empower</i></p> <p>Meetings during school with the Director and each cafeteria manager to explain the program and ask for feedback on program logistics</p>	Meet with consultants to identify barriers to program success
<b>School-level administrators</b>	Support	<p><i>Inform and consult</i></p> <p>Emailed summaries of current progress on program development</p>	Quarterly feedback on program metrics
<b>Teachers</b>	Support and cheerleader for program	<p><i>Involve and collaborate</i></p> <p>Initial education of program during all-staff meetings.</p> <p>Provide online/ongoing FAQ's and email surveys for initial feedback and questions</p>	Emailed surveys to assess program effectiveness and to identify barriers to participation from teacher lens
<b>Cleveland Co. Public Health Dept</b>	Consultant	<p><i>Consult and involve</i></p> <p>Meet with to build foundational relationships and explain program expected benefits for students and Cleveland County</p> <p>Elicit partnership to hire consultants to perform initial parent and student stakeholder engagement activities</p>	Quarterly meetings to provide data on program utilization



## APPENDIX 4.2: RASCI ANALYSIS

### School Nutrition Program

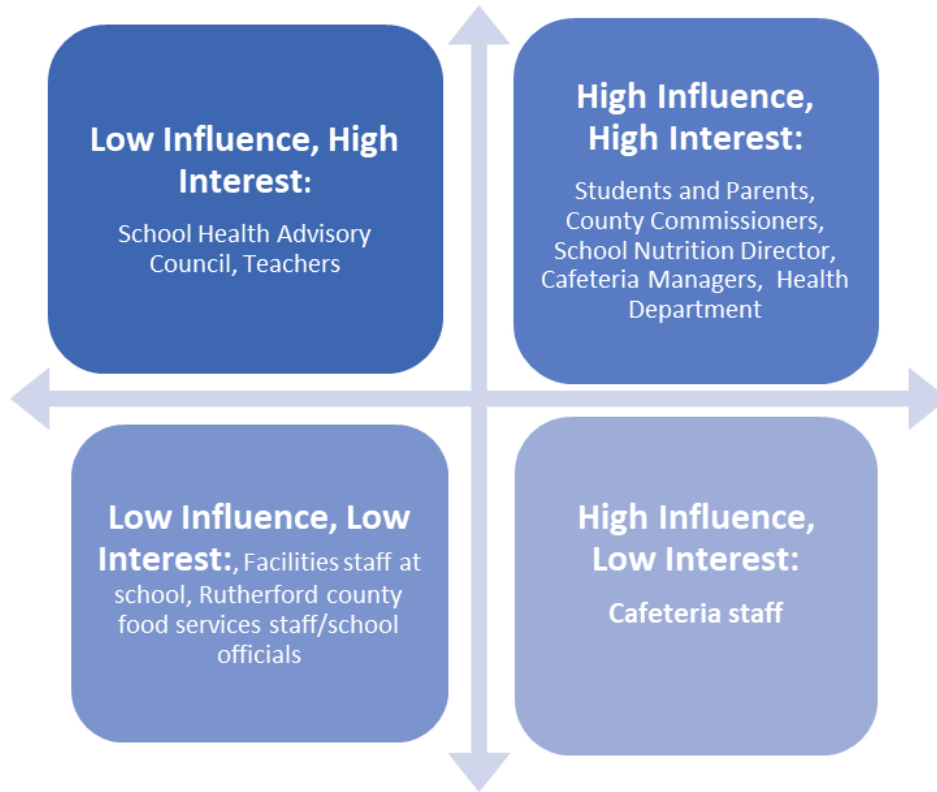
The Cleveland County Schools provide Breakfast After the Bell to all secondary students free of charge.

### Key Stakeholders:

1. Secondary students
2. Parents and families of students
3. Cleveland County Commissioners
4. School Leadership Team
5. School Health Advisory Council
6. Cleveland County Food Services Director
7. Individual School Cafeteria Managers
8. Facilities School Staff
9. Cleveland County Health Department

RASCI Analysis		
Who is...	Program Transformation	Rationale for Partner Participation
<b>Responsible</b>	6, 9, 7	In charge of ensuring the program will be designed and implemented in each school
<b>Accountable</b>	3	The Commissioners will have to show the program they chose to fund was successful and met its objectives
<b>Supportive</b>	4, 5	School staff and the advisory councils will support the programs during design and implementation
<b>Consulted</b>	1, 2, 7	Provide information to those responsible for the program; cafeteria managers should be consulted as they will be completing a portion of the work
<b>Informed</b>	8	Ancillary school staff will need to be informed of changes to workflow and daily job duties with implementation of new program

**APPENDIX 4.3: STAKEHOLDER POWER MAPPING**



## Presentation Slides and Script

# Stakeholders

**Primary Stakeholders**

- CCS students and families

**Other Key Stakeholders**

- School Nutrition Team
  - Director, cafeteria managers, staff
- Cleveland County Health Department
- School-level administrators
- Teachers and Staff
  - School Leadership Team

<p><b>Social</b></p> <ul style="list-style-type: none"> <li>• Parents (different genders, ages, races)</li> <li>• Students (different genders, ages, races)</li> <li>• District-level school leaders</li> <li>• School-level administration</li> <li>• Teachers</li> <li>• School Nurse</li> <li>• School Resource Officer</li> </ul>	<p><b>Technical</b></p> <ul style="list-style-type: none"> <li>• Director of School Nutrition</li> <li>• Cafeteria Manager</li> <li>• Cleveland County Schools Custodial Manager</li> <li>• School-level Lead Custodian</li> <li>• Cafeteria Worker</li> <li>• School Nutrition Director from a peer county who has implemented Breakfast After the Bell in their district</li> </ul>
<p><b>Economic (Environmental)</b></p> <ul style="list-style-type: none"> <li>• Local food distributors</li> <li>• Cleveland County Health Department</li> <li>• Local business owner</li> </ul>	<p><b>Political</b></p> <ul style="list-style-type: none"> <li>• Board of Education</li> <li>• NC Department of Public Instruction</li> <li>• Federal School Food Program regulations</li> <li>• Local medical provider</li> <li>• Cleveland County Commissioner</li> </ul>

Designing and implementing a successful program in Cleveland County Schools will require the involvement of a diverse group of stakeholders. We first used the STE(E)P Scan to initially help identify these individuals from different social, technical, economic, environmental, and political contexts in and around Cleveland County, which you can see [here](#).

Our primary stakeholders will be the Cleveland County secondary students and their families. They are the primary beneficiaries of the breakfast program, and their input will be required in order to design the program with their needs in mind. Their feedback will be important both initially, as we seek to understand current barriers to breakfast, and then throughout the program to assess effectiveness and to ensure its sustainability. A key stakeholder group will be the current school nutrition teams, including the director, Jada Brown, who will oversee the overall program, and each cafeteria manager, who will be intimately aware of current meal distribution logistics. The Cleveland County Health Department will be crucial in providing a public health lens to the program staff, and then in promoting the program after its implementation. School-level stakeholders will be the administrators, teachers and school staff, including the School Leadership Team, which is a group that already exists to help implement innovative ideas into the schools.

## Budget

Description	Cost per Unit	Number of Units	Total Cost	Source
Food service assistant, 1 per school, 50% FTE (includes salary, fringe benefits, and health insurance)	\$18,077.40	12	\$216,928.80	NC Office of Human Resources, n.d.
Cleaning supplies and trash bags	\$35 per month per classroom	6000	\$210,000	American Federation of Teachers (AFT), 2017
Bags for meals	\$20 per month per school	120	\$2400	AFT, 2017
Carts on wheels, 2 per school	\$90 each	24	\$2160	AFT, 2017
Large coolers, 3 per school	\$80 each	36	\$2880	AFT, 2017
Kiosk, 1 per school	\$3000	12	\$36,000	AFT, 2017
<b>GRAND TOTAL</b>			<b>\$491,968.80</b>	

Our proposed, annual budget is outlined here. Each school year, the majority of dollars will go toward personnel, specifically to hire a part-time food service assistant for each school. Other expenses include supplies to run a successful program: some being one-time purchases, like kiosks and coolers, with other supplies required monthly, like cleaning supplies and containers for meals, bringing our annual budget to just over 491 thousand dollars, with less money required in subsequent years.

## **APPENDIX E: KIM RAGAN'S INDIVIDUAL DELIVERABLES**

### **Problem Statement**

#### **Social Determinants of Health (SDoH): Education Access & Quality**

The Centers for Disease Control and Prevention define Social Determinants of Health (SDoH) as “conditions in the places where people live, learn, work and play which affect a wide range of health and quality-of-life-risks and outcomes.” Education Access and Quality is an SDoH that influences health for a lifetime because people who have access to quality education throughout their lives tend to stay healthier and live longer (Social Determinants of Health, 2021).

Attendance in school is related to physical, mental, and social health. Chronic absenteeism or missing at least 15 days of school in a year, affects the quality of education and the ability of students to learn in the short-term (Robert Woods Johnson Foundation, 2016). Children who frequently miss school are also at risk of social problems, risky health behaviors, dropping out of school, non-enrollment in college, and related adult sequelae such as earning a lower income, frequent work absences, and poorer health in the long term (Allen et al., 2018).

#### ***Geographic and Historical Context***

Cleveland County is a rural county covering 454 square miles located in the foothills of the Blue Ridge Mountains. The county has 15 cities, towns, and municipalities and the city of Shelby is the county seat. The county is bordered by South Carolina to the south, and the North Carolina counties of Rutherford, Lincoln, Gaston, and Burke. It has a total population of 99,519 and is 76% white, 21% black, and has 15% living in poverty (U.S Census, 2020). Agriculture was the primary source of income until the 1960s and today manufacturing companies make up 40% of the economy (About Cleveland County, 2022).

The largest employer in the area is Cleveland County Schools (CCS), the district is comprised of 29 schools with a total student population of almost 14,600 (Cleveland County Schools). The county also has one charter school, several private schools, and two post-

secondary schools: Garner-Webb University, a private 4-year institution, and the Cleveland County Community College (Cleveland County Health Department, 2020). Of note, Cleveland County has no public transportation services and only 66% of households have broadband internet (Cleveland County Health Department, 2020).

County resources available for children and families include a workforce readiness program called Accelerate Cleveland which supports underemployed individuals with career development (Cleveland County Health Department, 2020), and the Homeless Liaison which offers services to homeless youth and their families, including helping students enroll or stay in school and connecting families to community resources for health, transportation, and food. Additionally, CCS address SDoH by offering on-site health care services in their secondary school-based health centers staffed by public health nurses and mid-level practitioners and via telehealth services provided by Atrium Health (Cleveland County Schools).

### ***Priority Population***

CCS has a high school population of over 4,400 (Cleveland County Schools, 2021). High school students are of particular interest because, in the United States, chronic absenteeism rates are highest in high school for every race and ethnicity (Urquohart, 2017). Nationally, it has also been shown that rural schools, like those in Cleveland County, have higher absence rates (15.1%) compared to suburban schools (13.4%) (US Dept of Education, 2017).

Quality education is a concern for the community, and the 2019 Community Health Assessment reported risky behaviors such as tobacco use, excessive drinking, teen birth rates, and drop-out rates a top priority (Cleveland County Health Department, 2020). Only 88% of high school students graduate on time in Cleveland County and Cleveland County's high schools have higher absentee rates than the district average. Crest High School in Shelby has a chronic absentee rate of 29.9% and Shelby High School has an absentee rate of 26% (Office of Civil Rights, 2017).

The harmful impact of chronic absenteeism threatens all students, but students of color, students who live in poverty, students who are non-English learners, and students with chronic health conditions or disabilities all experience disproportionately higher absence rates compared to their peers (Chronic absenteeism in the nation's schools). Furthermore, nutritional factors such as food insecurity and consumption of a healthful diet influence school attendance and students' ability to learn (Centers for Disease Control and Prevention, 2014).

### ***Measures of the Problem Scope***

Research shows that students living in poverty are more likely to be absent from school than those from higher-income families (Allison et al, 2019). According to the 2020 Census, Cleveland County has 15% of persons who live in poverty and over 1,200 homeless children attend Cleveland County Schools each school year who qualify for the McKinney-Vento Homeless Assistance Act (2019 Cleveland County Community Health Assessment).

During the 2018-2019 school year, 56.9% of students across the district were economically disadvantaged and eligible to participate in the federal free and reduced-price meal program. However, North Shelby High School and Turning Point Academy had a disproportionately higher number of eligible students, 97% and 98%, respectively (Table 5.1)

(U.S. News, 2021). This is important considering that nutritional status and overall health have been shown to have an association with school attendance. Studies have shown that students from food-secure homes were 57% less likely to be absent from school (Tamiru, 2017). While data regarding food insecurity among chronically absent students are unavailable for Cleveland County or North Carolina, rates of absenteeism are likely correlated with rates of free and reduced lunch eligibility and food insecurity. According to the 2020 U.S Census, Cleveland County lags behind the state average of 87% with only 85.5% of their population 25 years are older obtaining a high diploma or higher.

### **Rationale/Importance**

School attendance is an early warning sign and a key indicator for measures like third grade reading proficiency and high school graduation rates (Urquhart, 2018). Students in Cleveland County have higher absentee rates than similar areas in the country and only 37% of middle school, and 50% of high school students tested at or above the proficient level for reading during the 2019 school year (US News, 2021). Addressing the factors behind chronic absenteeism in high school will improve graduation rates and the opportunity to pursue college.

### **Disciplinary Critique**

School absenteeism is a public health issue and a hidden educational crisis (Allen et al., 2018). Public health professionals should be concerned with and address the factors contributing to student absentee rates which can negatively impact their overall quality of life. They need to work to keep students present, in class, focused, and ready to learn because every day matters to help students succeed. Research has proven that healthy kids make better learners and better learners, make healthier adults and healthier communities.



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**TABLE 5.1: % OF ECONOMICALLY DISADVANTAGED STUDENTS IN CLEVELAND COUNTY HIGH SCHOOLS**

Cleveland County High School	Population	% Minority Enrollment	% Of total Economically Disadvantaged	Graduation Rate
Kings Mountain High*	1,178	31%	44%	92%
Crest High*	1,154	32.8%	43%	90%
Shelby High*	898	63.4%	55%	90%
Burns High*	944	27.8%	48%	89%
North Shelby	55	47%	97%	Opened 2019 School Year
Cleveland Early College High School	217	35%	45%	100%
Turning Point Academy	101	55%	98%	50%

\* Traditional high school

**Source:** U.S. News Best High Schools in North Carolina 2021 (U.S. News, 2021)

## **Stakeholder Analysis**

### **Key Issue**

The social determinants of health (SDOH) make up the conditions where individuals live, learn, work, play, and pray (Healthy People 2030, n.d.). They affect a wide range of both physical and mental health issues that must be addressed for everyone to have the opportunity to achieve the highest attainable standard of health (Colbert & Harrison, 2011). Education Access and Quality is an SDOH that influences health for a lifetime because people who have access to quality education throughout their lives tend to stay healthier and live longer (Social Determinants of Health, 2021). Attendance in school is related to physical, mental, and social health, and nutritional factors such as food insecurity and consumption of a healthy diet influence school attendance (Centers for Disease Control and Prevention, 2014).

### **Program Intervention**

The goal is to increase access and utilization of Free and Reduced-Price School Meal (FRP) breakfasts by including Breakfast After the Bell (BAB) in Cleveland County's middle and high schools for the 2023-2024 school year. The program will be funded by a Kellogg School Breakfast Grant. According to the Food Research & Action Center, students who participate in school breakfast exhibit decreased behavioral and psychological problems and have lower rates of absence and tardiness (Battles et al., 2018). However, many students who qualify for FRP meals face transportation barriers and stigma, preventing low-income students from accessing affordable and nutritious school breakfasts (Ranen Miao, 2022). BATB will mitigate some of the barriers to student utilization of school breakfasts. Only 31% of FRP eligible students in Cleveland County Schools participated in school breakfast in 2019. Breakfast offered through different methods after school starts has proven to increase breakfast consumption (No Kid Hungry NC, 2021).

Identifying and involving stakeholders in the early planning phases is key to the successful implementation phase of program development. The consultants will want to

consider the worldviews of a variety of stakeholders of different genders, ages, and races and address any concerns or barriers that show up. Stakeholders are those persons who have the knowledge, understanding, and lived experience of what will be needed to implement BAB. Tapping into their knowledge and listening to them early in the process will prove invaluable by helping avoid gaps, earn buy-in, and set the program up for success. To ensure stakeholders feel valued and heard, they will be engaged throughout the assessment, planning, implementation, phases, and updated on continuous evaluation. The engagement of stakeholders will vary based on their influence and interest in implementing Breakfast After the Bell.

### **Stakeholders**

To help identify important stakeholders from different social, technical, economic, environmental, and political contexts in and around Cleveland County, an STE(E)P Scan for Stakeholder Identification grid was used (Table 5.2). Our team will integrate the expertise of five groups of stakeholders: those who can benefit from BAB, school staff members whose job responsibilities will be directly impacted by BAB, school support staff, decision and policymakers, and members of the community with influence and interest in BAB.

Primary stakeholders who can benefit from BAB include students and staff. Students who either do not eat breakfast at home or who don't eat school breakfast prior to the start of school for a variety of reasons. Student representatives from middle and high schools of varying grades, race, ethnicity, and free and reduced lunch status will provide valuable insight into current attitudes surrounding school breakfast. While the BAB may benefit the entire student population, the targeted population is specifically those students who are eligible for FDP meals. Also, staff who have not eaten breakfast prior to the start of their workday can take advantage of the benefit of having food offerings available at work.

Secondary stakeholders are those people or groups that are indirectly affected, either positively or negatively, by the intervention of BAB and who we will want to listen to and

understand their stake in the change. It will be essential to have those school personnel whose job responsibilities will be directly impacted by implementing BAB at the table including school custodians, school nutrition personnel, school administrators, and teachers. Important representatives will include:

**Custodial Manager, Lisa Kelly:** She will know what additional supplies will be needed- custodial supplies (trash can liners, cleaning supplies, replacement carpet tiles)

**School Custodians:** A representative for this group is Sherry Ruffalo, Custodial Trainer  
Custodians may need to do additional cleaning in the classrooms, empty trash cans more frequently during the day, and clean carpets as a result of spilled food and milk.

**Director of School Nutrition, Jada Brown:** The director will need to do menu planning for items that are handheld or easy to transport and work with food suppliers for food item options and address supply chain concerns. She will need to budget for and order additional cafeteria supplies (disposable trays or individual food trays and plastic cutlery, carts to deliver food to the classrooms, or have stationed in high traffic areas around the school).

**Cafeteria Staff:** Representative for this group is Jennifer Ledbetter, Cafeteria Manager at Burns High School. The cafeteria staff has a vested interest in providing healthy meals for children. She can provide guidance in considering staffing concerns and the execution of BAB. Will additional staff be needed, or schedules adjusted to allow for manned stations around the building or to deliver food to the classroom while others are preparing for the first lunch service.

**School Administrators:** A representative for this group includes Dr. Dustin Morehead, Principal at Kings Mountain High School. Administrators will need to work with the cafeteria manager on the logistics of food delivery and breakfast schedules. Class schedules will need to be adjusted to allow time for students to pick up breakfast and get to class. School administrators will need to have oversight to make sure that all students have equal access to breakfast.

**Teachers:** A representative for this group includes Janet Brown, 7<sup>th</sup>-grade math teacher at Shelby Middle School. Teachers will need to allow students to eat in class and will have to take into consideration lessons planning during this time to avoid group work or lessons that would require students to be up and moving about the classroom until they are finished eating.

**Parents/caregivers** who may benefit from knowing that their child will have healthy food options available at school and from a decrease in disruptions in their day from School Nurse for complaints of illness or from teachers, administrators, or School Resource Officers (SROs) for performance or behavior issues related to hunger. It will be important to hear the worldviews of parents of varying ages, races, ethnicities, and socioeconomic statuses.

**Teachers, School Resource Officers (SRO), and administrators:** Teachers, SRO, and administrators may benefit from a decrease in classroom disruptions, student altercations, or disruptions that can result from behavior issues as a result of hunger. When kids are hungry, they have an increased possibility for behavioral issues like hyperactivity, aggression, or anxiety. Their moods can change. When they are feeling physical hunger, it impacts their emotional and their mental well-being, causing them to act out in different ways” (Gunter-Haas, 2019). If a child doesn’t have a behavior issue, hunger can make it difficult to concentrate in class.

**Students** (even those who do not participate in school breakfast) can potentially benefit from a positive classroom environment and school culture.

**Food supply companies** that have school contracts will benefit from an increase in sales.

**School Nurses: A representative of this group includes Heather Voyles, RN Lead Nurse.**

School Nurses may be indirectly affected by having decreased traffic through the health office for complaints of symptoms of hunger such as headaches and stomachaches and benefit in the fulfillment of having their health promotion and healthy lifestyle educational efforts come to fruition. Nurses have a vested interest in the health and safety of the students.

We will include policy and decision-makers including the school superintendent, school board, Cleveland County Board of Commissioners, and School Health Advisory Council. They can provide insight into the existing policies of Cleveland County Schools and how successful previous efforts have been. Important representatives will include:

**Cleveland County Schools Superintendent**, Dr. Stephen Fisher: The superintendent is ultimately responsible for all programs and initiatives in the district.

**Cleveland County Board of Education**: A representative for this group includes Dena Green. The Board of Education has a vested interest in student success and school performance.

**Cleveland County Board of Commissioners**: A representative for this group is Brian Epley. County commissioners have control over county funding provided to the schools.

**School Health Advisory Council (SHAC)**: A representative for this group is Tamara Goforth. Ms. Goforth is the administrator/parent member of the SHAC. The advisory council has influence over health initiatives for students.

Lastly, consultants will want to include members of the community with influence and high interest, including media, medical providers, and business owners. Important representatives will include:

**Local medical provider**: A representative for this group is Dr. Patricia Grinton, Pediatrician at Shelby Children's Clinic. Dr. Grinton is a physician and is the lead on school-based telehealth services provided in Cleveland County Schools. Dr. Grinton can apply her medical expertise in supporting the importance of breakfast and a healthy diet.

**Business owner**: A business owner who will promote the change initiative because they understand the importance that attendance and a good education can have in developing a qualified and reliable workforce.

### **Stakeholder Analysis**

To analyze the wide range of stakeholders a power analysis grid was used. The power-interest grid helps prioritize the level of management necessary for stakeholders based on their



power or influence and interest in a program or policy. This grid is broken into four quadrants, low power/low-interest stakeholders should be monitored, high power/low-interest stakeholders should be kept satisfied, low power/high-interest stakeholders should be kept informed, and high power/high interest stakeholders should be managed closely (Table 5.3). A stakeholder perspective table was used to consider the interests of all affected parties in its decisions (Table 5.4).

### **Stakeholder Management**

A Stakeholder Power Analysis (Table 5.3) was used to help understand which people can affect the success of the BAB program and an IAP2 Spectrum of Public Participation tool was used to identify the need for stakeholder engagement and management (Table 5.5).

Referring to Table 5.3., High interest/High Influence are the promoters of the program, and they care about and are invested in it. Consultants will pay attention to their opinions, get them involved so they feel responsible for part of what is going on, make sure they feel heard and part of the decision-making, and be an integral part of the team. They will be involved in all phases of the project and will be included in monthly meetings because they are the stakeholders who are empowered to make the final decisions and are the players implementing those decisions and the program.

For those latent, high influence/low-interest stakeholders we will need to offer them opportunities to weigh in on issues and demonstrate to them how BAB can positively impact students. Their collaboration is needed because they understand the issues and can identify options to move the program forward. Their advice will become embedded as much as possible into the decisions made. The consultants will provide bi-monthly updates via email and will be consulted as needed throughout the program. The defenders are those high-interest/low influence stakeholders who can advocate for the program and assist with promotional efforts. They will be provided quarterly updates via the School Nutrition web page and email and reach out as needed for assistance in promoting BATB. Low influence/low-interest stakeholders will be

provided balanced, objective information that they should know and act on. They will receive bi-annual update and will be included in the annual fiscal planning.

All stakeholders will be invited to an initial networking session to solicit their participation and acknowledge the assets that they each bring that can help CCPHD and CCS implement a successful BAB program. The goals of the session will be to inform stakeholders of the rationale of the project, the data and analyses that have shaped the understanding of the issues and strategies, what decisions have already been made, why, how, and by whom, identify common language and key jargon, outline the challenges the initiative faces, and introduce the proposed timeline.

The Breakfast After the Bell program is a strong public health intervention that has been proven to reduce food insecurity and improve school attendance, conditions that lead to better education quality and access. Implementing this program in Cleveland County Schools will require the targeted engagement of a diverse group of stakeholders to ensure success and benefit for the students.

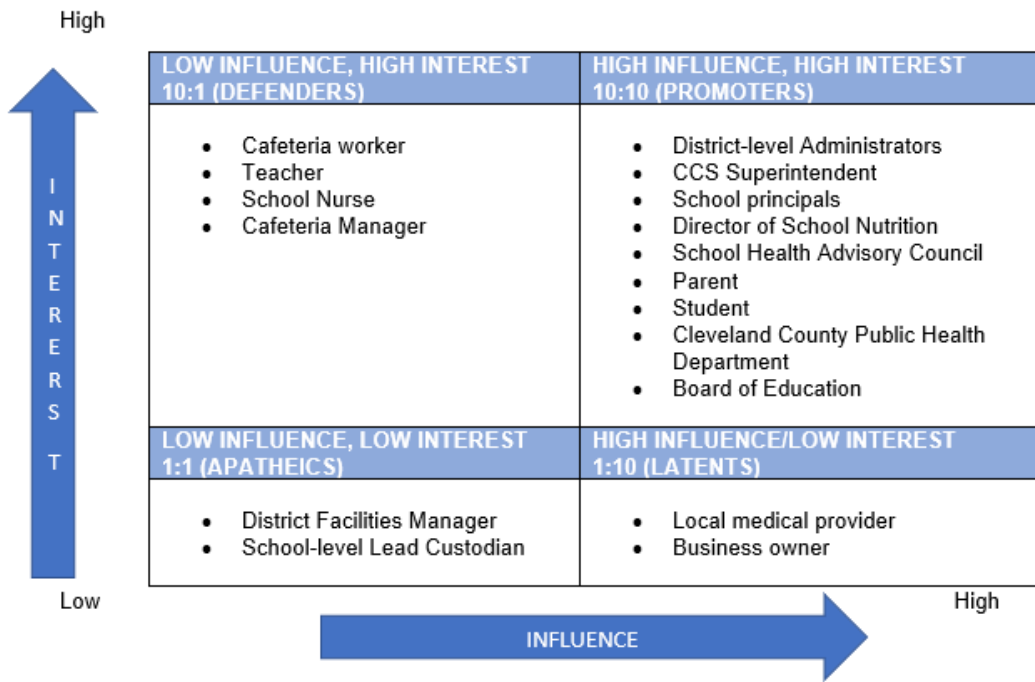
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**TABLE 5.2: STE(E)P SCAN FOR STAKEHOLDER IDENTIFICATION**

<p><b>Social</b></p> <ul style="list-style-type: none"> <li>• Parents (different genders, ages, races)</li> <li>• Students (different genders, ages, races)</li> <li>• District-level school leaders</li> <li>• School-level administrators</li> <li>• Teachers</li> <li>• School Nurse</li> <li>• School Resource Officer</li> </ul>	<p><b>Technical</b></p> <ul style="list-style-type: none"> <li>• Director of School Nutrition</li> <li>• Cafeteria Manager</li> <li>• Cleveland County Schools Custodial Manager</li> <li>• School-level Lead Custodian</li> <li>• Cafeteria Worker</li> <li>• School Nutrition Director from a peer county who has implemented Breakfast After the Bell in their district</li> </ul>
<p><b>Economic (Environmental)</b></p> <ul style="list-style-type: none"> <li>• Local food distributors</li> <li>• County Commissioners for funding and resource allocation</li> <li>• Cleveland County Health Department</li> <li>• Local business owner</li> </ul>	<p><b>Political</b></p> <ul style="list-style-type: none"> <li>• Board of Education</li> <li>• NC Department of Public Instruction</li> <li>• Federal School Food Program regulations</li> <li>• Local medical provider</li> <li>• Cleveland County Commissioner</li> </ul>

**TABLE 5.3: STAKEHOLDER POWER ANALYSIS AND MAPPING**



- *Promoters* have both great interest in effort and the power to help make it successful (or to derail it).
- *Defenders* have a vested interest and can voice their support in the community but have little actual power to influence the effort in any way.
- *Latents* have no particular interest or involvement in the effort but have the power to influence it greatly if they become interested.
- *Apathetics* have little interest and little power and may not even know the effort exists (*Section 8. identifying and analyzing stakeholders and their interests*)

**TABLE 5.4: STAKEHOLDER PERSPECTIVES**

	<b>Stakeholder Position</b>	<b>Influence (0-10)</b>	<b>Interest (0-10)</b>	<b>Goals</b>	<b>Objections to Project</b>
1	Parent	Low-3	High- 8	Healthy children	A lot of kids don't like to eat in the morning or don't like breakfast foods
2	Student	Low-3	Medium-5	Good food when I want it.	Will they serve food that I want to eat when I want to eat it?
3	District-level administrator	High-10	High-9	Increase student success and school performance outcomes	There's a lot of logistics to work out to make it happen. Will the additional work increase the number of students who participate in school breakfast?
4	School-level administrator	High-10	High-10	Decrease the number of episodic behavioral issues. Increase school performance	While it is a great idea, in theory, it can cause scheduling issues. The county office is consistently adding more things to our plates to "make it happen" during the same 7 ½ hour school day. Is it worth it?
5	Teacher	Low-3	High-8	Students focused and learning	How much will this disrupt instructional time?
6	School Nurse	Low-3	High-8	Kids healthy, in class, and ready to learn	Will menu items be healthy options? Will it reduce the number of students who experience headaches and stomachaches because they haven't eaten?
7	Director of School Nutrition	High-10	High-10	Provide quality, nutritious meals in an efficient way to avoid disruption to instructional time.	The importance of eating breakfast is well documented. It is not as simple as the students either eating in the cafeteria or they eat in the classroom. There are a lot of variables to take into consideration to make it successful. We did receive additional state funding allocated to staffing during the pandemic. Will funding continue next year when this program will be implemented? We are experiencing unprecedented supply chain issues during the pandemic.

8	Cafeteria Manager	High-9	High-10	Get every child served, hot food that they enjoy, and on time.	We already offer breakfast every day. Will this put added work and stress on my staff?
9	District Facilities Manager	Medium-6	Medium-7		We're going to have an increase in damage/stains to the floors and carpets.
10	School-level Lead Custodian	Low-2	Medium-6		This means extra work for me and my staff for cleaning and trash management.
11	School board member	High-9	Medium-6		Can you guarantee that it will raise test scores and keep kids in class, focused and learning? Is this what our school community wants?
12	Local medical provider	Medium-6	Medium-6		The benefit of eating breakfast should outweigh the additional work placed on school employees.

**TABLE 5.5: IAP2 SPECTRUM OF PUBLIC PARTICIPATION**

	Inform	Consult	Involve	Collaborate	Empower
<b>Stakeholder management</b>	Entire school community (Students, staff, and parents in the Cleveland County secondary schools)	District Custodial Manager- Lisa Kelly  School-level Lead Custodian- Sherry Rufflalo	Cafeteria worker  Parent-want diversity in gender, race, & ethnicity to represent parents of the secondary students  Student-We will want diversity in gender, race, & ethnicity to represent middle and high school  Teacher  School Nurse	School Board Member- Dena Green  Local medical provider- Dr. Grinton	District-level Administrators  Superintendent Fisher  School-level administrators- Dr. Dustin Moorehead-principal  Director of School-Jada Brown  Burns High School Cafeteria Manager- Jennifer Ledbetter  School Health Advisory Council- Tamara Goforth



<p><b>Public Participation Goal</b></p>	<p>To provide the school community and other members of the public with balanced and objective information to assist them in understanding the problem, alternatives, and/or solutions.</p>	<p>To obtain feedback from the school community and other members of the public on analysis, alternatives, and/or decisions.</p>	<p>We will work directly with the school community and other members of the public throughout the process to ensure that their concerns and aspirations are consistently understood and considered.</p>	<p>To partner with the school community and other public members in each aspect of the decision including the development of alternatives and identification of the preferred solution.</p>	<p>To place final decision-making in the hands of the school community and other members of the public.</p>
<p><b>Promise to the public</b></p>	<p>We will keep you informed.</p>	<p>We will keep you informed, listen and acknowledge concerns and aspirations, and provide feedback on the school community and public input that influenced the decision.</p>	<p>We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on the school community and public feedback that influenced</p>	<p>We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.</p>	<p>We will implement what you decide.</p>

			the decision.		
<b>Example techniques</b>	Establish an awareness campaign, add a page to the PTO & school website	Focus groups, student and parent surveys, public town hall meetings	Workshops Deliberative polling	Consensus building, participatory decision-making	Ballots, Delegated decision, Monthly meetings

**Engagement and Accountability Plans**

**Part I: Engagement Plan**

**Statement of Purpose**

Education access and quality impact graduation rates, future employment, and access to treatment and services that influence positive health outcomes and quality of life. The Cleveland County Public Health Department (CCPHD) consultants will work collaboratively with school officials to implement a Breakfast After the Bell (BAB) program in 75% of the middle and high schools in the Cleveland County School (CCS) district at the beginning of the 2023-2024 school year. The implementation of BAB will address the Social Determinant of Health (SDoH) of education access and quality through improved attendance, food security, and readiness to learn. It will reduce the gap between the number of students who participate in the school breakfast and the school lunch programs. While the program can benefit all students, it will

focus on low-income, rural residents of Cleveland County receiving free and reduced-price school meals, facing disproportionately higher barriers to healthy foods, and higher absence rates. The overall aim is to decrease food insecurities, improve school attendance and graduation rates, and reduce the risk of health disparities over time.

### **Summary of Purpose and Rationale of Engagement Plan**

To help with stakeholder analysis for the proposed BAB program, a RASCI matrix (Table 5.9) will be used to help generate a list of stakeholders, and then a power-analysis grid (Table 5.8) will be used to analyze this list of stakeholders. A RASCI matrix allows one to think about who is responsible, accountable, supportive, consulted, and informed for a program. Community engagement efforts will be the foundation for the success of the BAB program. Consultants will work with community members to learn from their experience, knowledge, relationships, skills, and participation to ensure that those most impacted by social challenges have a say in designing and implementing solutions. The Cleveland County Public Health Department must work with the school personnel and other members of the community, establish trust, and share power so that community members have a sense of self-determination (The Guide for Accountable Care Communities, 2019). It will be important to be clear, direct, and transparent about the purpose of engaging the school community and the role that the CCPHD will have in the project. Stakeholders will include school administrators, personnel, and board members, as well as a diverse group of parents, students, and other members of the community. They will be invited to participate in a variety of engagement opportunities including individual Zoom or in-person discussions, group meetings, focus groups, implementation, advocacy, and promotional activities based on their interest and influence. Stakeholders will be asked to identify any gaps in stakeholders represented “at the table” and when, where, and how often they would like to meet. CCPHD promises to collaborate by facilitating stakeholder meetings, providing marketing materials, and promoting program participation. The CCS' School Nutrition Director will be empowered to lead the implementation of BAB in the schools.

## Engagement Methods (Table 5.6)

All stakeholders will be invited to an initial networking session to solicit their participation and acknowledge the assets that they each bring that can help CCPHD and CCS implement a successful BAB program. The goals of the session will be to first inform stakeholders on:

- The rationale of the project,
- what decisions have already been made, why, how, and by whom,
- the data and analyses that have shaped the understanding of the issues and strategies,
- identify common language and key jargon,
- outline the challenges the initiative faces, and
- introduce the proposed timeline (Leading Inside Out & the Collective Impact Forum et al.).

The moderator will set the ground rules for engagement and participants will be asked to engage in 30-minute small group sessions, separating school personnel and community stakeholders to complete all four cells in the Give-Get Grid (Table 5.7)., beginning with their own “gives and gets” and then projecting anticipated “gives and gets” of their partners. The moderator will reconvene the large group and facilitate discussion to uncover small group and mutual expectations and discover assumptions and perceptions of the value of benefits to be derived from the program (Southerland et al., 2013). Using a preformatted Give-Get Grid on a flip chart to display what the stakeholders developed, the moderator will facilitate the discussion. Acknowledging and emphasizing that while everyone comes from various backgrounds which may be intimidating to some, they were each invited to participate because they have something valuable to contribute to the conversation, will have an equal opportunity to speak and to have their opinions heard.

Use of the Give-Get Grid for partnership program planning activities provides a visible means to assess each stakeholders' expected benefits ('gets) and contributions "gives") needed to establish a mutually advantageous partnership (Southerland et al., 2013).

An engagement plan will be implemented based on stakeholder feedback. Different communication methods will be used depending on the stakeholder's interests, influences, and power. Interactions will vary from monthly in-person meetings where progress towards metrics are provided and decisions made to individual interviews, focus groups, quarterly updates, social media postings, and bi-annual newsletters. Monthly meetings will be held to keep key stakeholders informed on the progress of the program planning and implementation, updated on progress made towards achieving benchmarks, and involve them in decision-making. During the planning phase, individual workgroup sessions will be held monthly with the cafeteria managers, principals, and lead custodians to discuss site-specific decisions at each implementation site. Bi-monthly Zoom meetings will be held with all the implementation teams to allow for sharing ideas and problem-solving opportunities. The School Nutrition Director and district-level administrator will report to the School Health Advisory Council at their quarterly meetings. During the first two months of planning, the CCPHD consultant will hold individual Zoom or in-person discussions with parent and student team representatives to solicit feedback on menu items and vide an opportunity for them to offer strategies on how to increase participation in school breakfast, etc. The School Nutrition Department will establish a website with a dashboard showing metrics and indicators to keep parents and the community informed on the BAB program. CCPHD will use social media postings and print materials to promote participation in the project.

## **Part II: Accountability Plan**

### **Memorandum of Understanding**

The Memorandum of Understanding (the "Memorandum") is made on December 01, 2022, by and between Cleveland County Schools, of 400 West Marion Street, Shelby, North

Carolina, 28150 (hereinafter referred to as “CCS”) and Cleveland County Public Health Department, of 200 South Post Road, Shelby North Carolina, 28150 (hereinafter referred to as “CCPHD”) for the purpose of achieving the various aims and objectives relating to the Breakfast After the Bell Program (the “Project”).

WHEREAS CCS and CCPHD desire to enter into an agreement in which School Nutrition and CCPHD will work together to complete the Project;

AND WHEREAS CCS and CCPHD are desirous to enter into a Memorandum of Understanding between them, setting out the working arrangements that each of the partners agrees are necessary to complete the Project;

AND WHEREAS CCS and CCPHD agree on the following:

**Short-term aims:**

1. 75% of Cleveland County Schools’ middle and high schools will implement BAB at the start of the 2023-2024 school year to address the SDoH of education access and quality through improved attendance, food security, and readiness to learn.
2. Reduce the gap between the number of students who participate in the school breakfast and school lunch programs.
3. Improve Health Eating Index score (diet quality) by an average of 3 points among secondary students in Cleveland County (Bhattacharya et al, 2006).

**Long-term aims:**

1. Decrease breakfast gap-70% of Free or Reduced Price Meals-eligible students who eat school lunch will also eat school breakfast by 2030 (Philbin, n.d.).
2. Reduce marginal food insecurity by 10% over the first 10 years of the program (Bartfield & Ahn, 2011).
3. The overall aim is to decrease food insecurities, improve school attendance and graduation rates, and reduce the risk of health disparities over time.

## **Purpose**

The Partners acknowledge that no contractual relationship is created between them by this Memorandum but agree to work together in the true spirit of partnership to ensure that there is a united visible and responsive relationship of the Project and to demonstrate financial, administrative, and managerial commitment to the Project by means of the following individual services. This Memorandum will outline activities to be delivered, partner-specific responsibilities, mutual responsibilities, effective dates of agreement, terms and conditions of the agreement, assessment metrics, and evaluation methods.

## **Cooperation**

The activities and services for the Project shall include, but are not limited to:

- a. Services to be rendered by CCS include:
  - Serve as the backbone agency responsible for the BAB program.
  - Communicate with CCPHD on a monthly basis for the first year of the project to ensure alignment of goals and provide feedback.
  - Preparation and distribution of nutritious breakfast offerings after the start of the school day in compliance with the National School Breakfast Program
- b. Services to be rendered by CCPHD include:
  - Develop, print, and distribute marketing and promotional materials for the Project.
  - Communicate with School Nutrition on a monthly basis for the first year of the project to review the effectiveness and explore opportunities for improvement and enhancement of the BAB program.

## **Resources**

The Partners will endeavor to have final approval and secure any financing necessary to fulfill their financial contributions at the start of the planning for the development of the Project.

- a. CCS hereby agrees to provide the following financial, material, and labor resources in respect to the Project:

School Nutrition Director, Jada Brown serves as Project Manager for the Project, accountable for completing and submitting all required budget and program deliverables to grant funder, provide in-kind School Nutrition staff and cafeteria facilities for preparing meals, and handle negotiations with all food and supply vendors, public relations representative will work jointly with CCPHD public relations officer on the promotion of Project through the school website and social media accounts, and local newspaper and news outlets.

- b. CCPHD hereby agrees to provide the following financial, material, and labor resources in respect of the Project:

In-kind marketing personnel to create print advertising and promotional materials for the Project, contract with a local printing company to produce materials, pay printing costs up to a total of \$5,000 per year, promote participation in the Breakfast After the Bell Program through the distribution of flyers in all CCPHD clinical and customer-facing departments and provide print materials to the schools to distribute, public relations officer will work jointly with school public relations representative on the promotion of the Project through the public health website and social media accounts.

### **Communication Strategy**

Marketing of the vision and any media or other public relations contact should always be consistent with the aims of the Project and only undertaken with the express agreement of both parties (CCS and CCPHD). Where it does not breach any confidentiality protocols, a spirit of open and transparent communication should be adhered to. Coordinated communications should be made with external organizations to elicit their support and further the aims of the Project.



## **Term**

The arrangements made by the Partners by this Memorandum shall remain in place from Dec. 01, 2022, until June 30, 2027. The term can be extended only by agreement of both Partners.

## **Understanding**

It is mutually agreed upon and understood by and among the Partners of this Memorandum that:

- a. Each Partner will work together in a coordinated fashion for the fulfillment of the Project.
- b. In no way does this agreement restrict involved Partners from participating in similar agreements with other public or private agencies, organizations, and individuals.
- c. This Memorandum will be effective upon the signature of both Partners.
- d. Any Partner may terminate its participation in this Memorandum by providing written notice to the other partner.
- e. Provide letters of support for any grant application Cleveland County Schools submit for sustainability funding for BAB.

The following Partners support the goals and objectives of the Breakfast After the Bell Program:

**Signatures**

This Agreement shall be signed on behalf of Cleveland County Schools by Jada Brown, School Nutrition Director, and on behalf of Cleveland County Public Health Department by Tiffany Hansen, MPA, its Public Health Director. This Agreement shall be effective as of the date written above.

By: \_\_\_\_\_ Date: \_\_\_\_\_

Cleveland County Schools  
Jada Brown, School Nutrition Director

By: \_\_\_\_\_ Date: \_\_\_\_\_

Cleveland County Public Health Department  
Tiffany Hansen, MPA, its Public Health Director

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**TABLE 5.6: STAKEHOLDER ENGAGEMENT PLAN: BREAKFAST AFTER THE BELL (BAB) IN CLEVELAND COUNTY SCHOOLS**



<b>Name of stakeholder organization, group, or individual</b>	<b>Potential role in the activity</b>	<b>Engagement strategy</b>	<b>Follow-up strategy</b>
Teachers	Essential to the success of the program since they will be providing time for the students to get and consume their food.	How will you engage stakeholders in the activity? First, I would inform them about the intervention, then consult with them to obtain feedback or hear their issues, and then involve them in the decision-making. Work to understand any potential problems and include them in identifying options for moving forward. This will help earn buy-in and the success of the program.	Plans for feedback or continued involvement Regular monthly feedback at their staff meetings to share successes and hear and address concerns.
Superintendent Fisher	Ultimately responsible for the implementation and success of the program.	Involve, collaborate, and empower  Work to understand any potential problems and include him/her in identifying options for moving forward and empower to make the final decisions.	Once the decision has been made to implement the intervention, feedback is provided during the first couple of months of implementation and then less frequently. Due to his heavy workload, quarterly updates will be provided unless unintended problems arise.
District Custodial Manager- Lisa Kelly  School-level Lead Custodian trainer, Sherry Ruffalo	Planning and implementation of the program. Knowledgeable about the supplies and personnel that are needed.	Involved in monthly planning meetings until the program is well established.	Regular feedback, advice, and recommendations are solicited at monthly meetings.
School-level administrator representative,	"Boots on the ground" workers to put	Involved in monthly planning meetings until the	Regular feedback, advice, and recommendations are

Principal Dustin Moorehead  Cafeteria Manager, representative, Jennifer Ledbetter	the program into action.	program is well established.	solicited at monthly meetings.
Board of Education representative, Dena Green  Local Medical Director, Dr. P. Grinton	Influence and support  BOE representative is a subject matter expert on implementing programs to address the needs of the school community  Dr. Grinton is a subject matter expert on the importance of breakfast and food security.	Solicit program support by sharing data and analyses indicating the need for BAB, listen, and acknowledge concerns at the initial “all stakeholder” networking meeting.	Quarterly updates via email or in-person meetings.  Utilize promotional activities if agreeable.
Parents, Students, School Health Advisory Council, representative, Tamara Goforth	Support and share worldviews.	Focus groups, parent and student Zoom or in-person discussions, public town hall meetings.  Provide gas cards for participating	Annual public town hall meetings, establish PTO and school websites, and social media campaigns, and post updates at least bi-annually.

**TABLE 5.7: GIVE-GET GRID**

<b>Partner</b>	<b>Gives</b>	<b>Gets</b>
Cleveland County School Nutrition	<ul style="list-style-type: none"> <li>• Subject matter expertise</li> <li>• In-kind personnel and facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Funding for BAB program</li> </ul>
Cleveland County Public Health Department	<ul style="list-style-type: none"> <li>• Financial support for marketing materials</li> <li>• Promotional support</li> <li>• Subject content expertise</li> </ul>	<ul style="list-style-type: none"> <li>• Positive Public relations exposure</li> <li>• Develop relationships with new community partners</li> <li>• Trust of community</li> </ul>
Parents & Students	<ul style="list-style-type: none"> <li>• Personal time to participate</li> <li>• Provide lived experience</li> </ul>	<ul style="list-style-type: none"> <li>• Access to content experts</li> <li>• To share ideas for what they think will have a positive impact on the BAB program</li> <li>• Gas cards for participating</li> </ul>
Medical provider	<ul style="list-style-type: none"> <li>• Support</li> <li>• Medical expertise and subject content</li> </ul>	<ul style="list-style-type: none"> <li>• Positive public relations exposure</li> <li>• Potential exposure to new patients</li> </ul>

**TABLE 5.8: STAKEHOLDER POWER ANALYSIS AND MAPPING**

High	<b>LOW INFLUENCE, HIGH INTEREST 10:1 (DEFENDERS)</b>	<b>HIGH INFLUENCE, HIGH INTEREST 10:10 (PROMOTERS)</b>	
	<ul style="list-style-type: none"> <li>• Cafeteria worker</li> <li>• Teacher</li> <li>• School Nurse</li> <li>• Cafeteria Manager</li> </ul>	<ul style="list-style-type: none"> <li>• District-level Administrators</li> <li>• CCS Superintendent</li> <li>• School principals</li> <li>• Director of School Nutrition</li> <li>• School Health Advisory Council</li> <li>• Parent</li> <li>• Student</li> <li>• Cleveland County Public Health Department</li> <li>• Board of Education</li> </ul>	
	<b>LOW INFLUENCE, LOW INTEREST 1:1 (APATHEICS)</b>	<b>HIGH INFLUENCE/LOW INTEREST 1:10 (LATENTS)</b>	
Low	<ul style="list-style-type: none"> <li>• District Facilities Manager</li> <li>• School-level Lead Custodian</li> </ul>	<ul style="list-style-type: none"> <li>• Local medical provider</li> <li>• Business owner</li> </ul>	High
			

- *Promoters* have both great interest in effort and the power to help make it successful (or to derail it).
- *Defenders* have a vested interest and can voice their support in the community but have little actual power to influence the effort in any way.
- *Latents* have no particular interest or involvement in the effort but have the power to influence it greatly if they become interested.
- *Apathetics* have little interest and little power and may not even know the effort exists (*Section 8. identifying and analyzing stakeholders and their interests*)

**TABLE 5.9: RASCI**

<b>RASCI Stakeholder Matrix for Breakfast After the Bell (BATB) in The Cleveland County School District, Cleveland County, NC</b>		
<b>Who is....</b>	<b>Program Transformation</b>	<b>Rationale for Partner Participation</b>
<b>Responsible</b> = owns the problem/project	Cleveland County Schools' Director of School Nutrition- Jada Brown  Superintendent	Ms. Brown has the overarching responsibility to implement the program in her cafeterias. She will have connections to reach out to other school district SN directors who have programs.  Ultimately the superintendent is answerable for all programs in CCS.
<b>Accountable</b> = ultimately answerable for the correct and thorough completion of the deliverable or task, and the one who delegates the work to those responsible	Cafeteria managers in each building  School principals	Cafeteria managers are responsible for "boots on the ground" delivery of nutrition services  Principals can make logistical recommendations on how to implement the program in their building and ensure necessary resources are available.
<b>Supportive</b> = can provide resources or can play a supporting role in the implementation	Cleveland County Public Health Department (CCPHD) Local medical provider Board of Education (BOE) School Nurses School Social Workers	CCPHD is providing marketing materials;  CCPHD, medical provider, BOE, School nurses, and social workers can assist in the promotion of BAB program participation.
<b>Consulted</b> = has information and/or capability necessary to complete the work	Randolph County Schools (RCS) Director of School Nutrition	RCS has an established BAB program, can share lessons learned
<b>Informed</b> =must be notified of results, process, and methods, but need not be consulted	Parents/School community Public News media	News media must be informed and happy to report on the BAB program to avoid communication gaps.  The entire school community must be informed to help promote and utilize the program.



## Presentation Slides and Script



### Engagement and Accountability Plan

To implement BAB in the Cleveland County Schools' middle and high schools for the 2023 SY, we will first establish stakeholder engagement, communication, and accountability plans.

## Engagement Plan

1. Use a stakeholder engagement matrix to outline:
  - scope
  - boundaries
  - metrics
  - timeline
2. Engagement Plan includes:
  - Stakeholder identification- Who needs to be at the table?
  - Stakeholder interest, power, and influence



Process flow of stakeholder engagement [left of top arrow ... (cont.)]. Retrieved April 7, 2021, from [https://www.researchgate.net/figure/Process-Flow-of-Stakeholder-Engagement-left-of-top-arrow-right-of-top-arrow\\_fig14\\_35062664](https://www.researchgate.net/figure/Process-Flow-of-Stakeholder-Engagement-left-of-top-arrow-right-of-top-arrow_fig14_35062664)

A stakeholder engagement matrix will be used to outline the scope of the project, define boundaries, decide on the metrics, and create a timeline. Then all stakeholders will be invited to an initial networking session to solicit their participation and acknowledge the assets that they each bring that can help implement a successful BAB program. The goals of the session will be to inform stakeholders of the rationale of the project, what decisions have already been made, why, how, and by whom? To share the data and analyses that shaped the understanding of the issues and strategies, identify common language and key jargon, outline the challenges the initiative faces, ask if anyone is missing from the conversation, and introduce the proposed timeline. It will be important for the consultants to listen, establish trust, and share power so that the community members have a sense of self-determination (Leading Inside Out & the Collective Impact Forum, 2017).



## Accountability

MOU established between CCS & CCPHD to implement BAB

- Effective 2023 school year
- CCS is responsible for BAB
- CCPHD will assist in marketing and promotion of the program



A memorandum of understanding will be established between the Cleveland County School District and the Cleveland County Public Health Department to communicate the mutual goals and responsibilities of each organization in establishing the Breakfast After the Bell Program. There will be a press release to announce the agreement to work together in the true spirit of partnership to address the issue of food insecurity in the county and the potential impact it can have on students' educational success and health outcomes. The school district will serve as the backbone agency responsible for the BAB program and will be responsible for program implementation, budget, evaluation, and grant deliverables. The health department agrees to support and promote the program.