



THE CHARLIE CART PROJECT

Stella Leung, MPH candidate

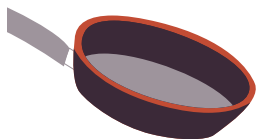
July 19, 2024



Outline

- The Charlie Cart Project (CCP) core components
- Logic Model (draft)
- *Theoretical framework:*
 - *Social Cognitive Theory (SCT)*
 - *Socio-Ecological Model (SEM)*

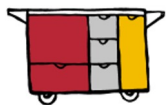




The Charlie Cart Project (CCP)



CCP's mission is to make hands-on food education accessible everywhere children gather to learn



Mobile Kitchen

A durable kitchen on wheels, with power, storage and sink



Equipment

All the tools and appliance you'll need to cook with students



Curriculum

Hands-on lesson plans for K-5, aligned to Math, Science and English Language Arts



Training & Support

Training and resources needed to maximize your program



Network

A forum for educators to share best practices and exchange ideas





Who is using the Charlie Cart?

More than 500 sites with educators from over 275 organizations in 46 states



Schools



Libraries



Food Banks



Community
Organizations






CCP helps to address...

- A lack of cooking and nutrition education in schools*
- Poor fruit and vegetable consumption among children*
- Poor diet quality among children*
- Insufficient competent food educators (Conversation with CCP staff)

* 2014 Draft Evaluation Outline



Key Motivations of CCP

- 
1. A lack of cooking and nutrition education in schools
 2. Training food educators





U.S. Centers for Disease Control and Prevention

“Nutrition education is a vital part of a comprehensive health education program and empowers children with knowledge and skills to make healthy food and beverage choices.

US students receive less than 8 hours of required nutrition education each school year, far below the 40 to 50 hours that are needed to affect behavior change.”

https://www.cdc.gov/healthyschools/nutrition/school_nutrition_education.htm



Objective(s):

|----- Program Level -----|

|----- Target Population Level -----|

Inputs



Processes/
Activities



Outputs



Short-term

Medium-term

Long-term

Outcomes

Human Resources:

Physical Resources:

Informational Resources:

Monetary Resources:

Partners:

Assumptions / Environmental Factors:

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**Processes/
Activities**

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Human Resources:
 - Project: program director admin, curriculum developers, trainers, M&E
 - Supply chain/equipment: cart equipment purchaser, maintenance personnel
 - Operation/Partnership
 - Media: communication, promotional materials, website/graphic designer
 - Site: school/site staff, volunteers
Physical Resources:
 - Mobile kitchen cart
 - Equipment in cart
 - Food ingredients
Informational Resources:
 - CCSS, ELA, NGSS, C3
Partners: Schools, learning centers, organizations
Project funding

Develop self-contained mobile cooking carts
 Connect with suppliers and purchase the kitchen cart and equipment
Develop curriculum
 Develop introductory training session
 Develop monthly training curriculum & webinars
 Connect with potential partners, orgs, educators
 Create and maintain network forum
 Develop monitoring & evaluation tools


Mobile kitchen unit with equipment / # of complete mobile unit
 Curriculum / # of lesson plans
 Introductory training session / # of training session provided
 Monthly virtual trainings / # of webinars created and provided
 # school/sites equipped with CC
 # of staff/educators trained to use CC and curriculum
 # of students participated in the CC curriculum / # of lesson used for each group of students
 # of CC used & freq of usage
 Teacher & Student interview guide & survey

Children
 Educators
 Institutions

Assumptions: schools/orgs see needs of hands-on food education and purchase CC



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CCP’s Approach



“We believe that by teaching students to master a very basic set of skills through repetition, their comprehension of each skill deepens and their self-confidence grows. This mastery through repetition is a proven learning tool for cooking, reading, writing, mathematics, and more.”

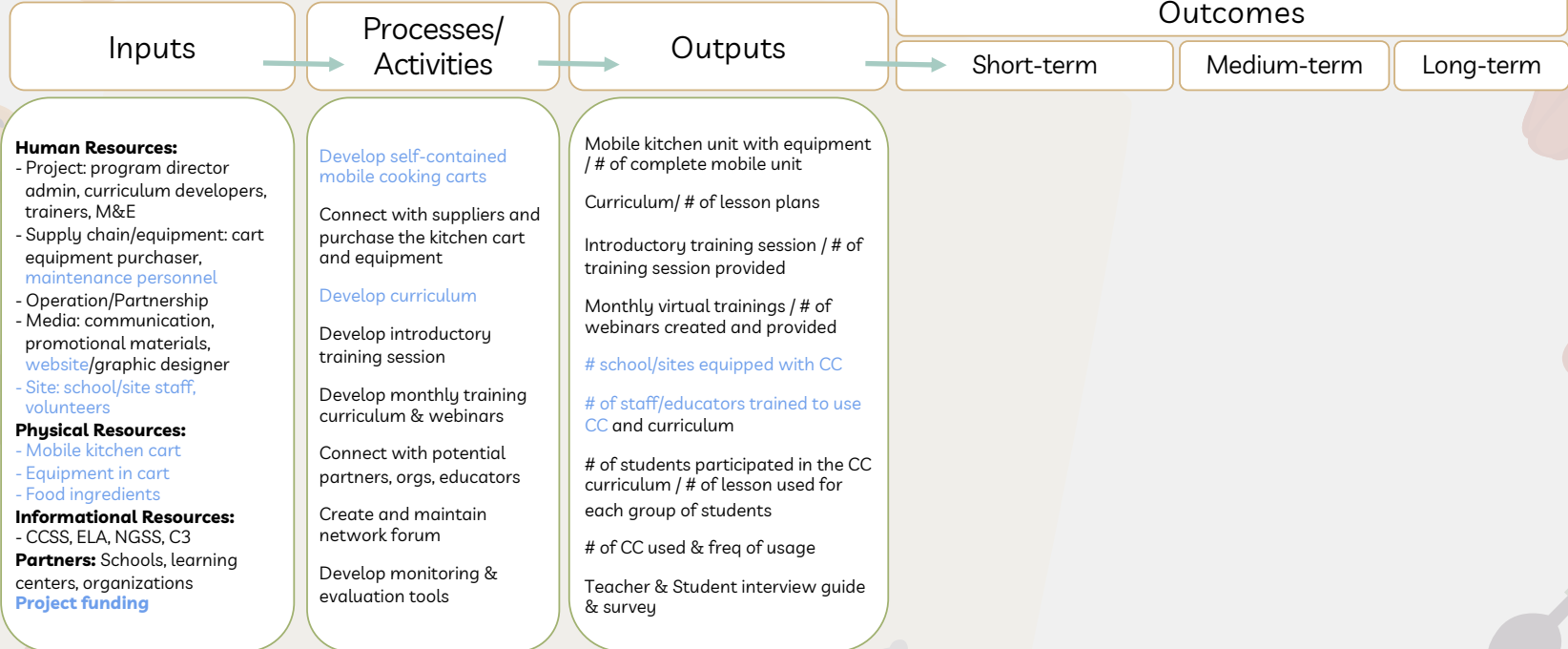
Curriculum, p. 5



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Teacher & Student interview guide & survey

Increase food systems knowledge

Increase familiarity with whole food, and food categories

Increase knowledge of healthy recipes

Increase # of food tasted

Increase # of cooking tool/skill used

Increase ability to prepare healthy food

Increase # of healthy food/snacks (in-class)

Reinforce learning in Science, Math, English Language Arts, Social Studies

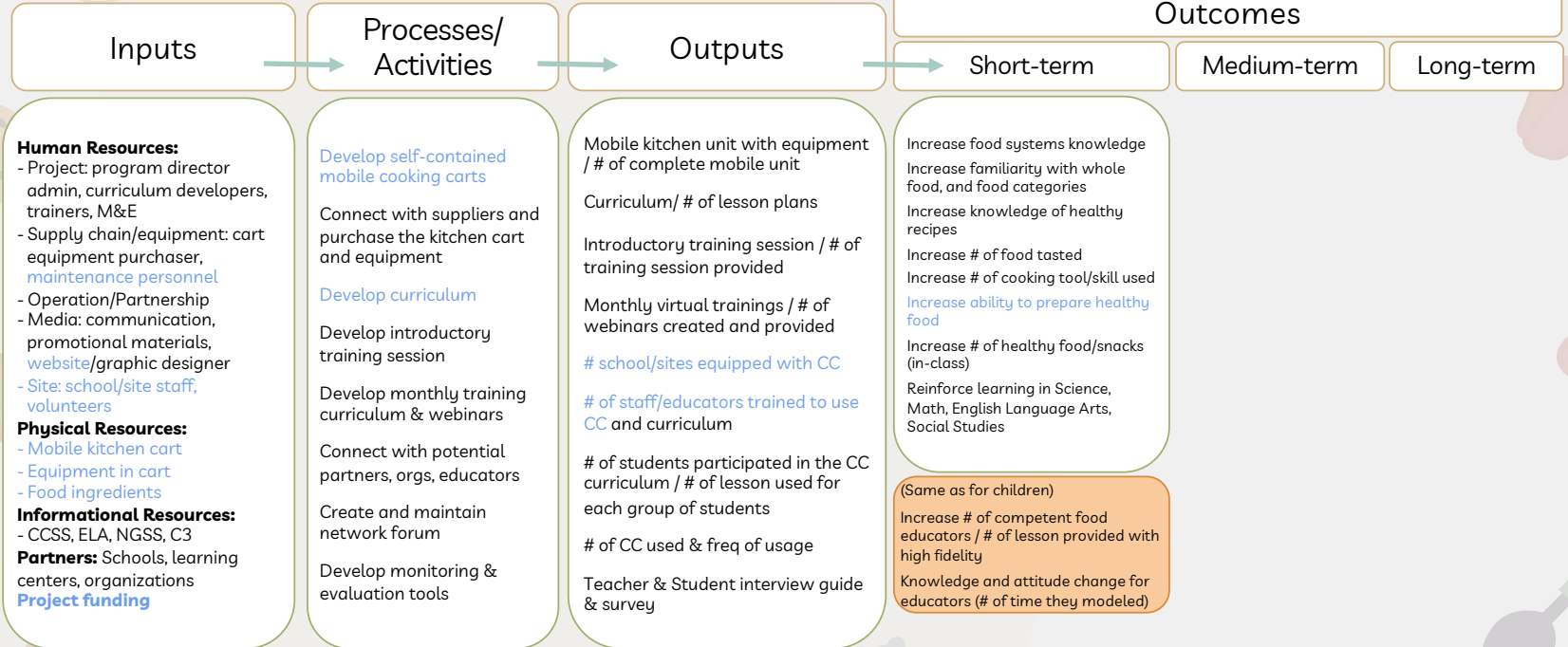
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Institutions

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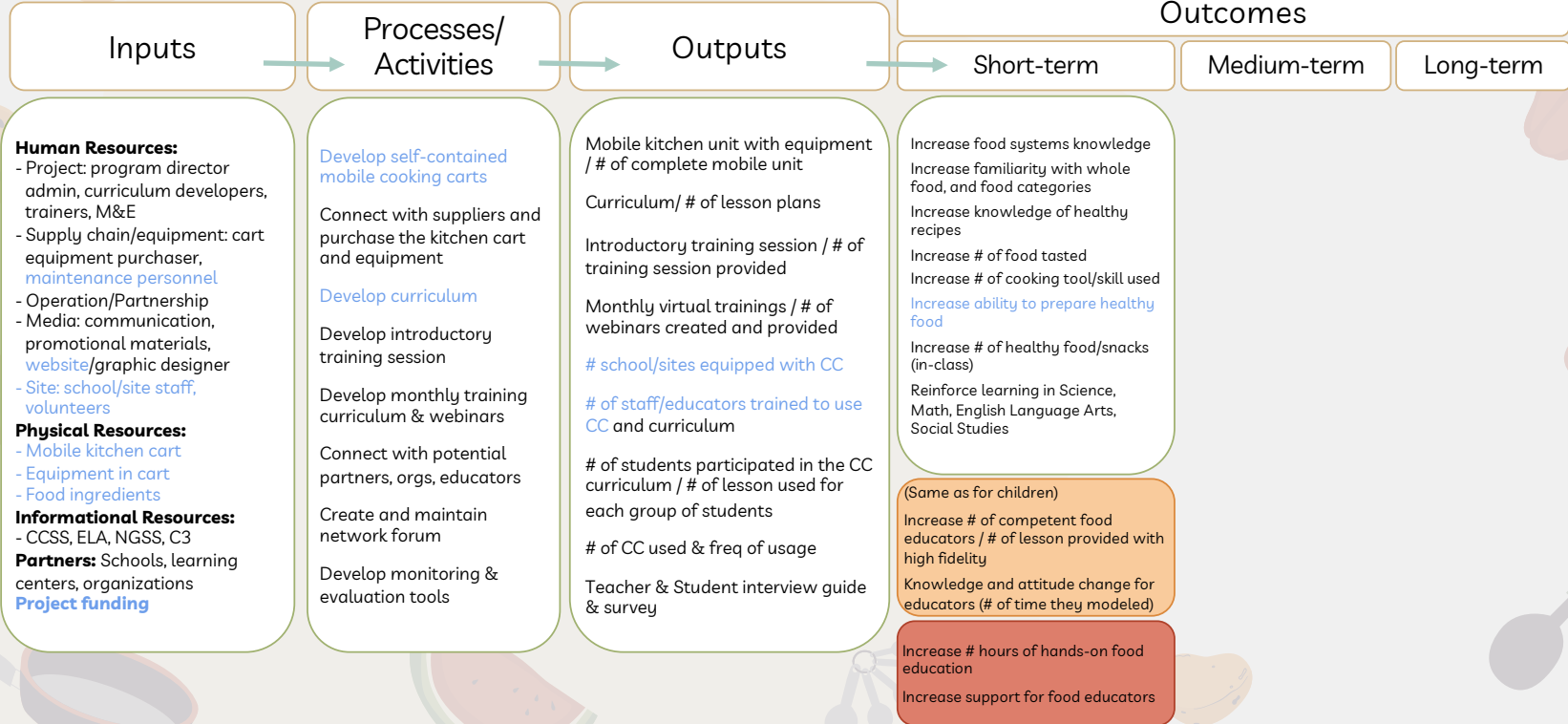
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 Increase # of healthy food/snacks (in-class)
 Reinforce learning in Science, Math, English Language Arts, Social Studies

(Same as for children)
 Increase # of competent food educators / # of lesson provided with high fidelity
 Knowledge and attitude change for educators (# of time they modeled)

Increase # hours of hands-on food education
 Increase support for food educators

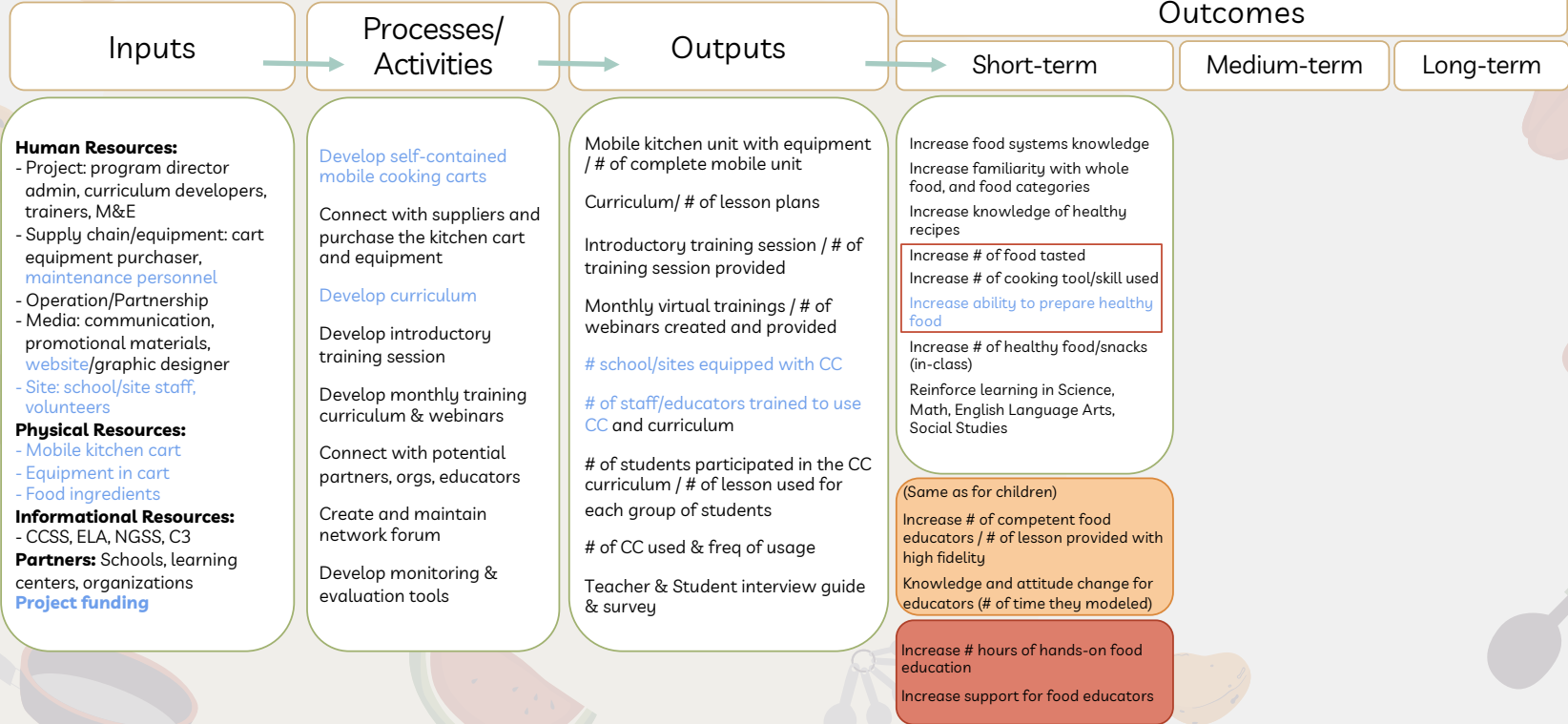
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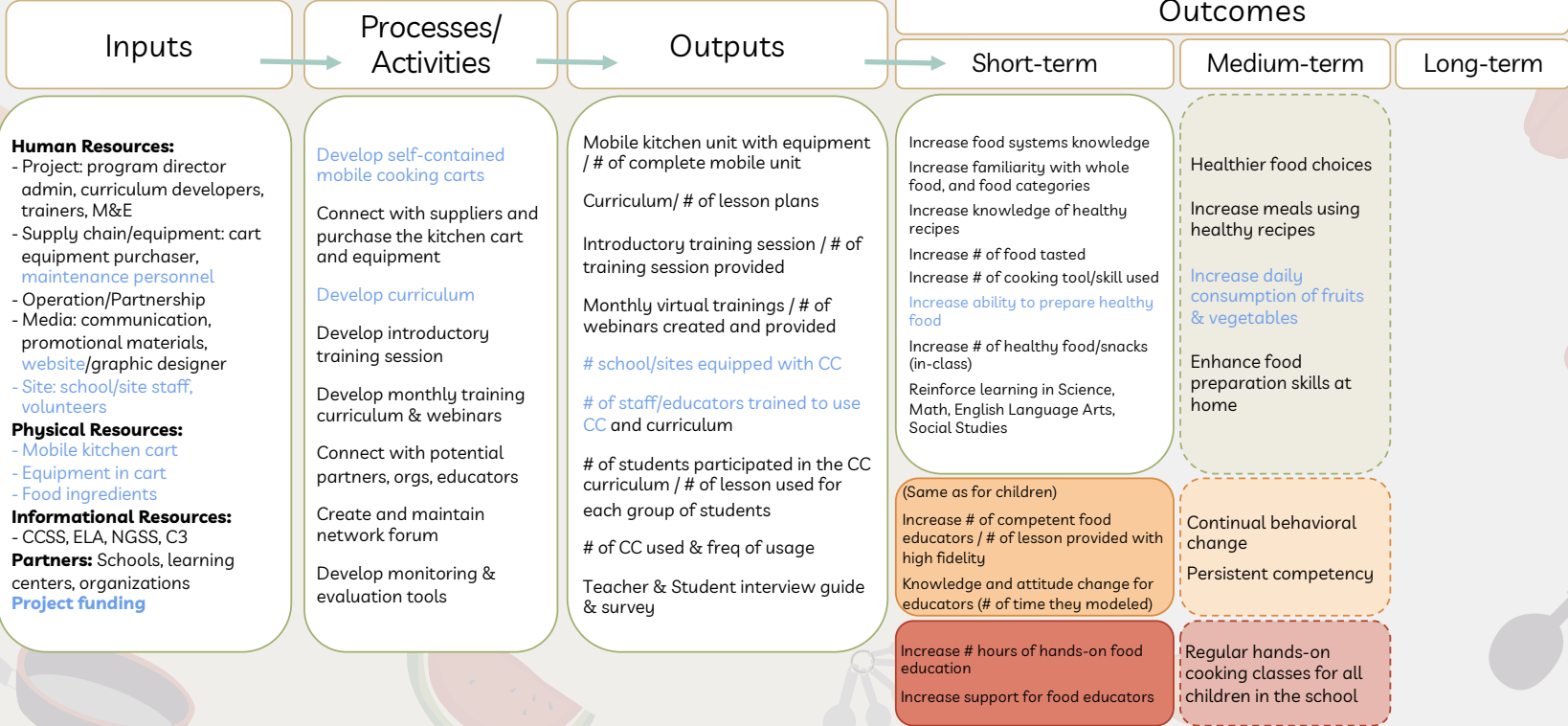
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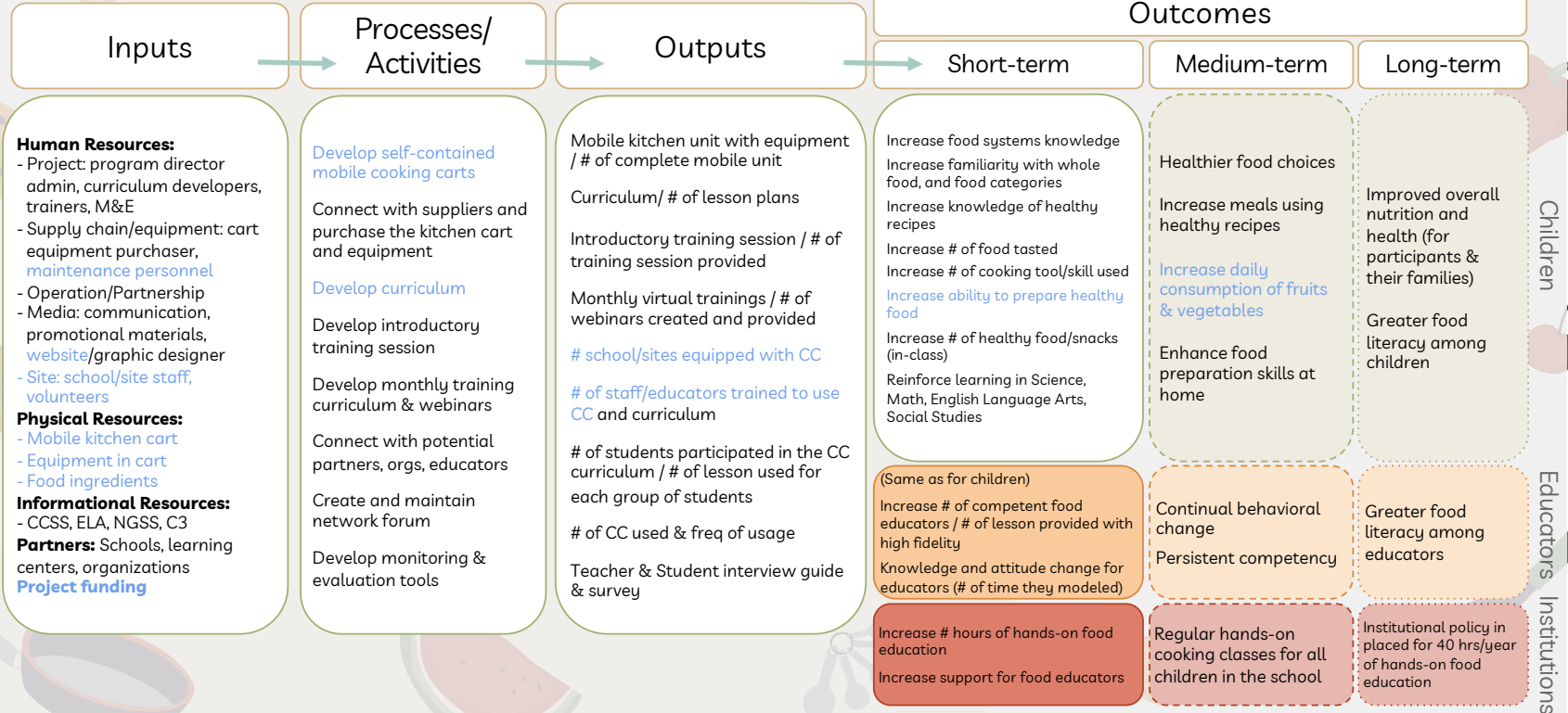
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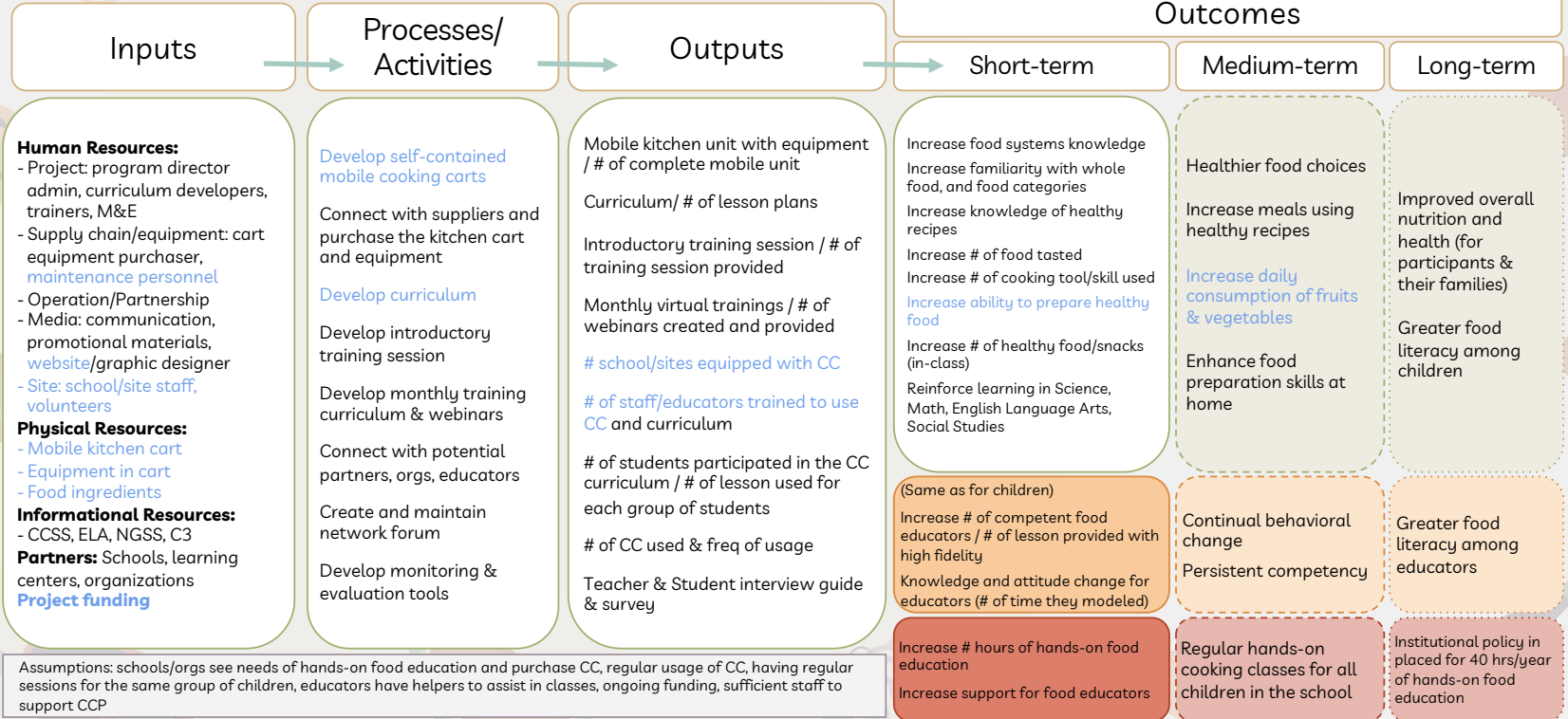
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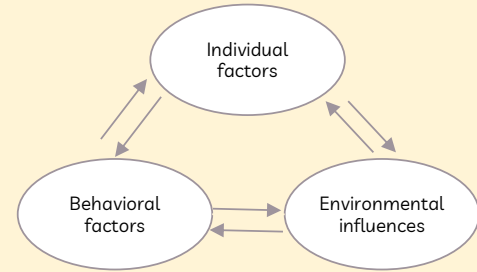
Pause & Discussion

- What are your reflections in terms of the mission statement? What are the ultimate goal and desire outcomes (long-term impact)?
- How is the CCP's approach of mastery through repetition being implemented? What are the staff capacities in monitoring this type of process evaluation?

Theoretical Framework

1. Best supported by Social Cognitive Theory (SCT)

- SCT explains human behavior in terms of a three-way, dynamic, reciprocal model in which personal factors, environmental influences, and behavior continually interact.
- A basic premise is that people learn not only through their own experiences, but also by observing the actions of others and the results of those actions.
- In group nutrition programs, activities such as cooking demonstrations, problem-solving discussions, and self-monitoring are rooted in SCT. (Glanz, 2021)



2. Additional support: Socio-Ecological Model

Social Cognitive Theory

Individual / Cognitive
Supporting behavior
Environmental

Self-Efficacy

Knowledge

Behavioral Capacity

Barriers & Opportunities

Observational Learning

Reciprocal Determinism

Social Support

The confidence a person feels about performing a behavior, and about overcoming the obstacles to performing it.

Confidence is enhanced through mastery experiences, social modeling, verbal persuasion, and practice under stress-free conditions.

Bandura has viewed this as the most important predictive construct in SCT.

Knowledge is an understanding of the health risks and benefits of different health practices and the information necessary to perform a behavior.

Knowledge of risks and benefits is a precondition for change. Information is also needed to perform certain behaviors.

E.g., to cook a health meal one needs to know a recipe, where to purchase healthy ingredients, and methods of preparation.

Behavioral capacity/skills - the abilities needed to successfully perform a behavior. E.g., playing a sport, or preparing a healthy meal.

Knowledge and skills together comprise what is called *Behavioral capability*.

Social Cognitive Theory

Individual / Cognitive
Supporting behavior
Environmental

Self-Efficacy

Knowledge

Behavioral Capacity

Barriers & Opportunities

Observational Learning

Reciprocal Determinism

Social Support

Attributes of the social or physical environment that make behaviors harder or easier to perform.

A type of learning in which a person learns new information and behaviors by observing the behaviors of others and the consequences of others' behaviors.

Accomplished by observing an influential role model or peer-leader performing a behavior and achieving an outcome.

There is an "interactive loop" between individuals and an environment. The interactive process of *reciprocal determinism*, where an individual interacts with an environment, receives a response from the environment, adjusts behavior, interacts again, etc.

Social Support - the perception of encouragement and support a person receives from his/her social network.

Interventions seek to provide informational, instrumental, or emotional support (through, e.g., program flyers, offers to babysit, or a sympathetic conversation) for behavior change.

Social support not only aids adherence to a new behavior but also contributes to perceived self-efficacy.

Goal: CCP's mission is to make hands-on food education accessible everywhere children gather to learn.

| Self-Efficacy | Knowledge | Behavioral Capacity | Barriers & Opportunities | Observational Learning | Reciprocal Determinism | Social Support | CCP components |
|---------------|-----------|---------------------|--------------------------|------------------------|------------------------|----------------|---------------------------------------|
| | ✓ | | | | | | Knowledge of food & nutrition |
| | ✓ | ✓ | ✓ | ✓ | ✓ | | Tasting new food |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | Learning new cooking skills |
| ✓ | | ✓ | ✓ | ✓ | ✓ | | Practicing new cooking skills |
| ✓ | ✓ | ✓ | ✓ | ✓ | | | Learning new recipes |
| | | ✓ | ✓ | ✓ | ✓ | | Eating healthy snacks/food (in-class) |
| ✓ | ✓ | ✓ | ✓ | ✓ | | | Trainings & Webinars |
| | ✓ | | | | | ✓ | Network Forum |

Socio-Ecological Model (SEM)

Individual
knowledge,
attitudes, skills,
behaviors

Interpersonal
Families, friends,
social networks

Organizational
organizations, social
institutions

Community
Relationships
between
organizations

Public Policy
State, local laws &
regulations

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Social Cognitive Theory

Self-Efficacy

Knowledge

Behavioral Capacity

Barriers & Opportunities

Observational Learning

Reciprocal Determinism

Social Support

Outcomes

Improved overall nutrition and health (for participants & their families)
Greater food literacy among children

Healthier food choices
Increase meals using healthy recipes
Increase daily consumption of fruits & vegetables
Enhance food preparation skills at home

Increase knowledge and understanding of the connections between food, health, & environment
Increase familiarity with fruits, vegetables, & other whole foods
Increase knowledge of healthy recipes
Increase # of food tasted
Increase # of cooking tool/skill used
Increase ability to prepare healthy food
Increase # of healthy food/snacks (in-class)
Reinforce learning in Science, Math, English Language Arts, Social Studies

Knowledge of food & nutrition
Tasting new food
Learning & practicing new cooking skills
Learning new recipes
Eating healthy snacks/food (in-class)

Greater food literacy among educators

Continual behavioral change
Persistent competency

(Same as for children)
Increase # of competent food educators / # of lesson provided with high fidelity
Knowledge and attitude change for educators / # of time they model

Trainings & Webinars
Network Forum

Institutional policy in place for 40 hrs/year of hands-on food education

Regular hands-on cooking classes for all children in the school

Increase # hours of hands-on food education
Increase support for food educators

Socio-Ecological Model

Individual

Interpersonal









Organizational

Community

Public Policy



Discussion & Recommendations

- 
- What are the ultimate goal and desired outcomes?
 - Recommendations:
 - Refine mission statement
 - Determine SMART objectives
 - Update logic model
 - Monitoring and evaluation plan will come naturally once the above are clarified
- 
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Thank you!



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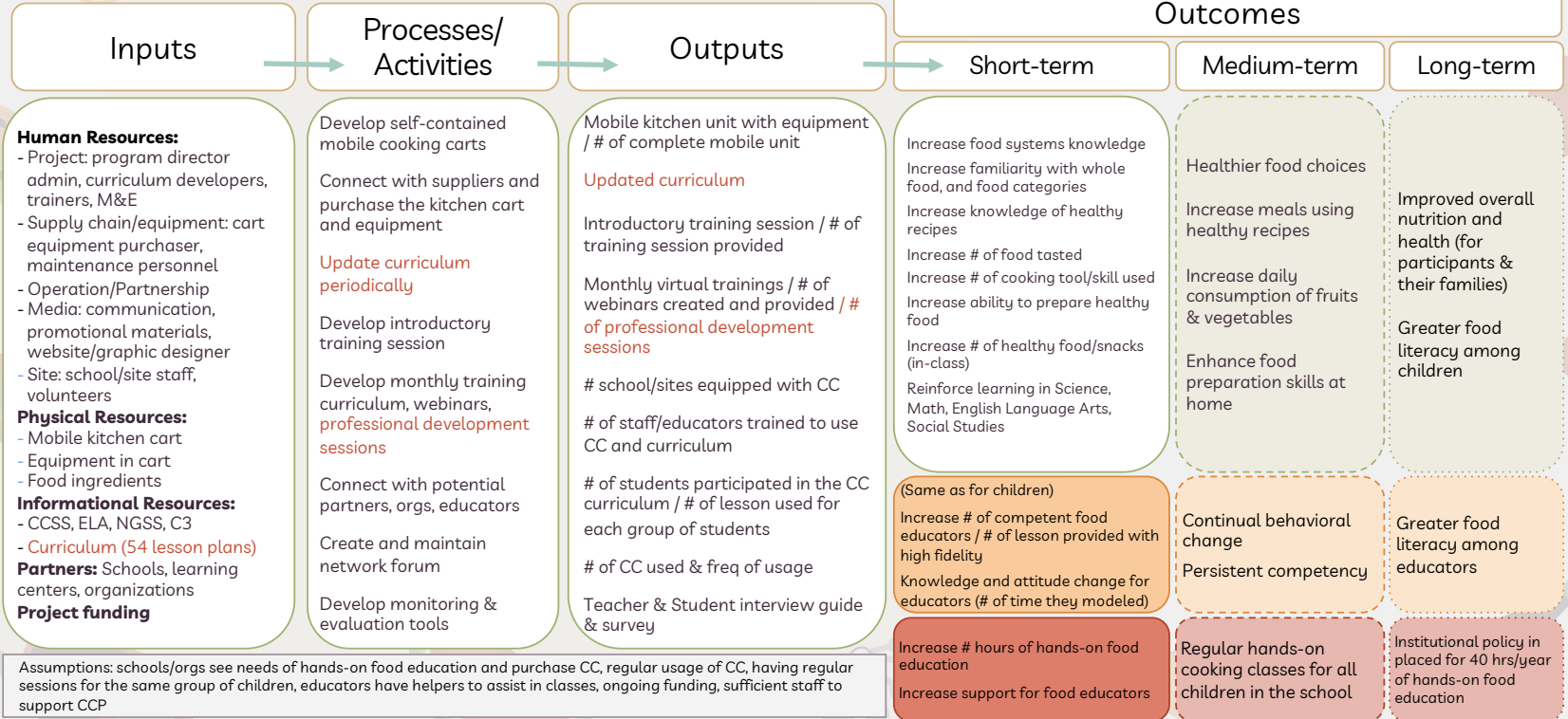
Updated logic model

August 1, 2024

Objective: CCP's mission is to make hands-on food education accessible to the next generation so that children and families have the knowledge and confidence to make healthy food choices for life.

----- Program Level -----

----- Target Population Level -----



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Educators

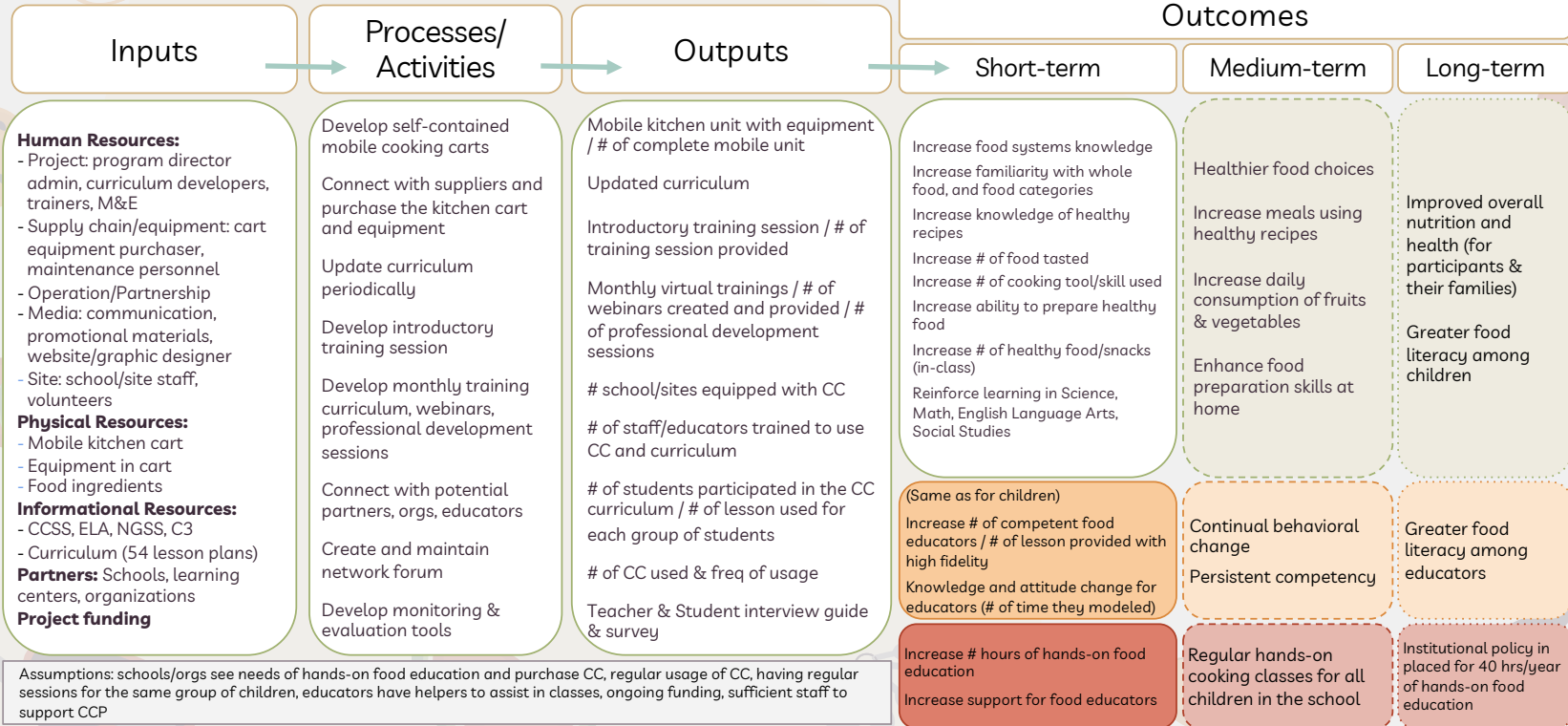
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