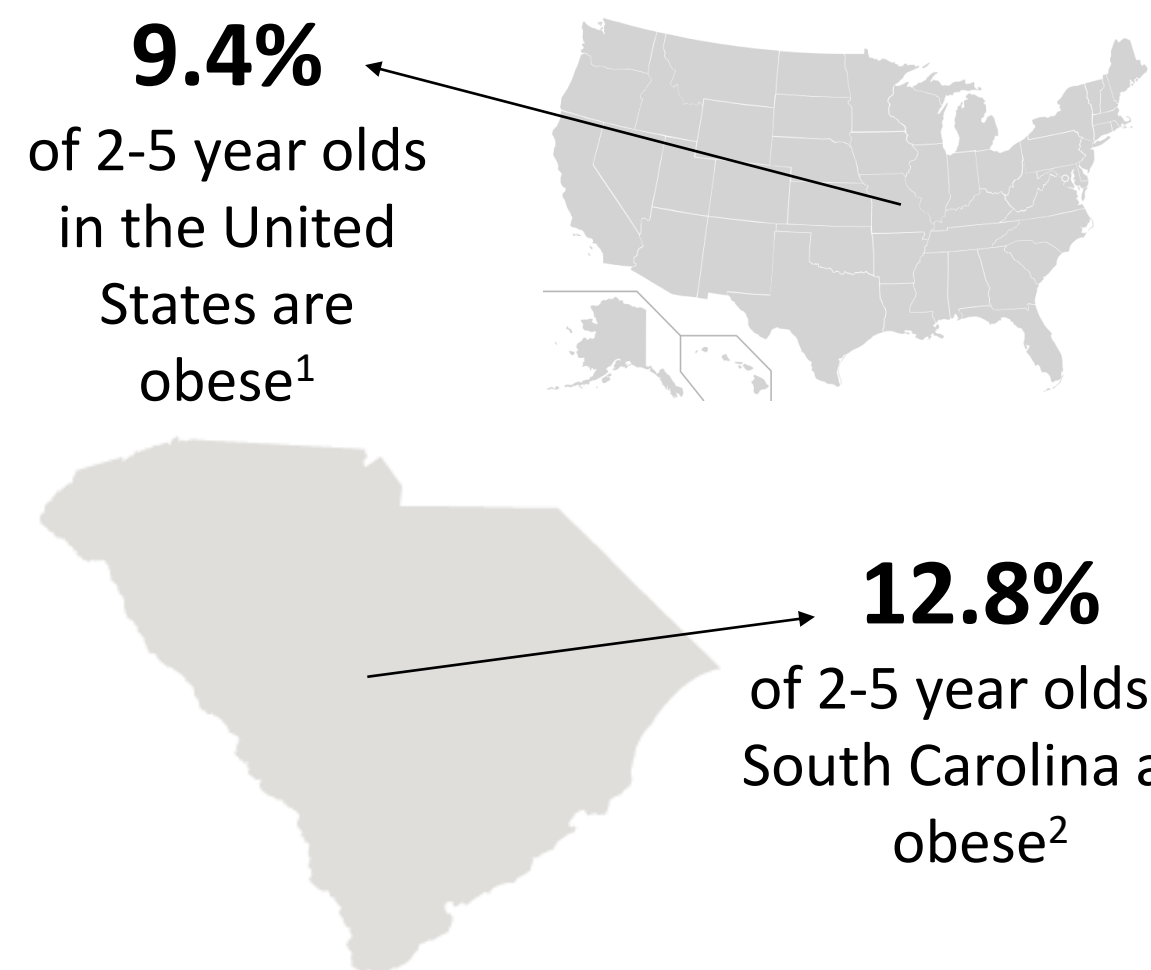


# Living Well in Early Childhood Childcare Settings: Evaluating the Impact of a Community-Based Early Childhood Obesity Prevention Project

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## Background



- Before age 5, children's brains are developing rapidly.
- A nutritional diet and adequate physical activity are crucial to achieving and maintaining optimal health.
- The diet and physical activity habits created in the first 5 years can set a precedent for health behaviors for the future.
- Because the prevalence of overweight and obesity among US preschool-aged children remains high, childcare settings are an important target for obesity prevention.

1. Ogden, C. L., Carroll, M. D., Lawman, H. G., Fryar, C. D., Kruszon-Moran, D., Kit, B. K., & Flegal, K. M. (2016). Trends in obesity prevalence among children and adolescents in the United States, 1988-1994 through 2013-2014. *Jama*, 315(21), 2292-2299.  
 2. CDC. Division of Nutrition, Physical Activity, and Obesity. 2010 Pediatric Nutrition Surveillance System, Table 6 (PedNSS).

## Objective

- Utilizing a community-based participatory research (CBPR) approach, the proposed study will evaluate the impact of a 2-year multicomponent early childhood obesity prevention intervention on early childhood food and physical activity (PA) policies and environments.

LiveWell Greenville is a coalition of over 150 organizations working together to ensure access to healthy eating and active living for every Greenville county resident. Through partnerships with local organizations, LiveWell assesses and engages the population at each facility in order to plan and implement ways to improve health. LiveWell Greenville launched the Early Childhood Initiative and 2 year pilot study in response to a community demand.

## Methods: Study Population & Design

A one group pretest-posttest design was used to evaluate the early childhood childcare centers.

**10** sites in Greenville county participated in the pilot study

**6** sites are located in faith-based organizations

sites vary in race, ethnicity, and socioeconomic class

Ages of children in the study range from **3-5** years old

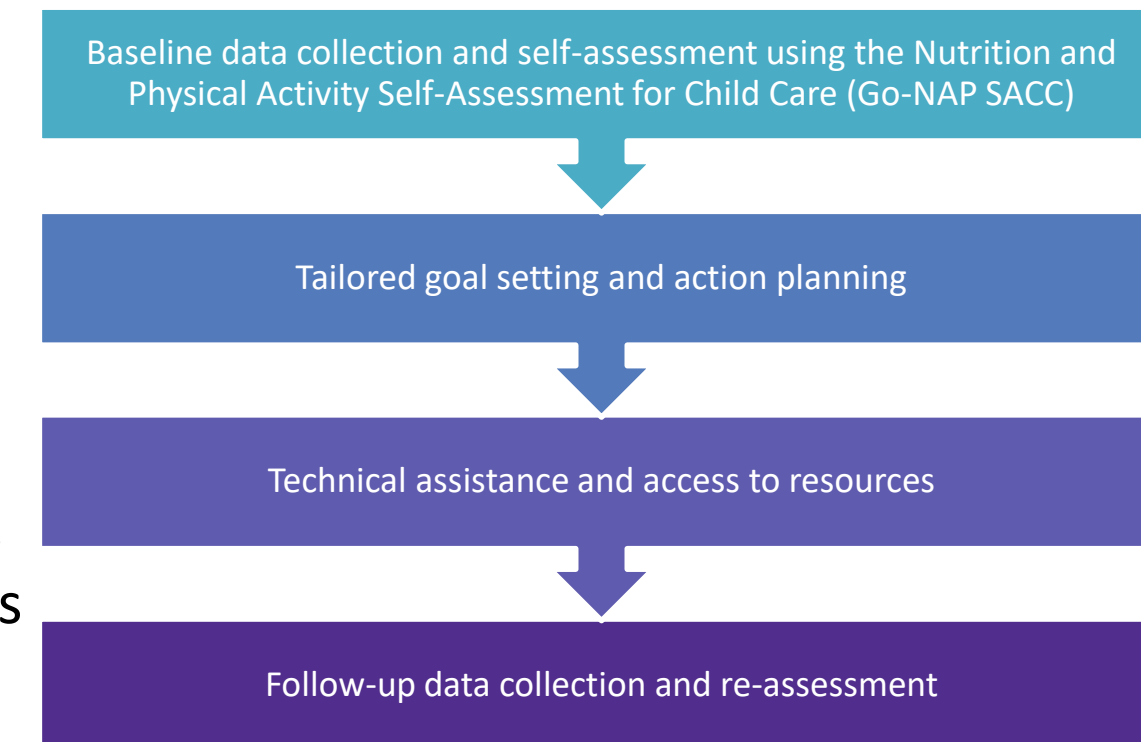
## Methods: Outcome Measures

- Environmental changes are assessed using the **Environmental and Policy Assessment and Observation (EPAO)** tool designed to assess childcare environments.
- EPAO consists of 75 items assessing childcare nutrition and PA environments, policies, and practices measured over a full-day.
- EPAO results in 18 food environment and activity environment scores.
- At each site, one 3-5 year old classroom was randomly selected for observation.
- Baseline data have been collected in 10 sites.
- Follow-up data will be collected in August of 2018.
- Due to non-normally distributed data, the median is presented in results.

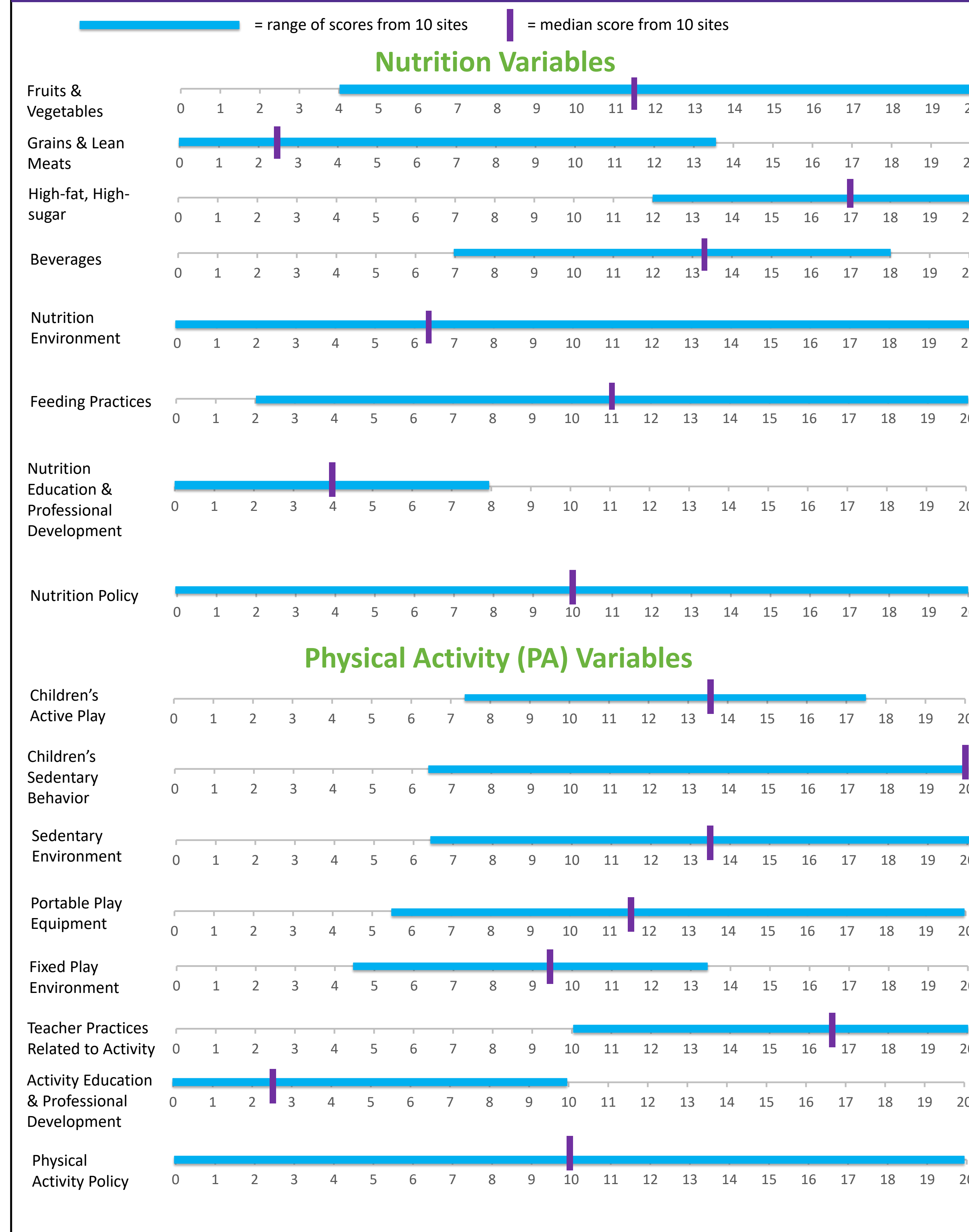
## Methods: Intervention

- Since April 2015, stakeholders have convened monthly to develop the Early Childhood intervention.
- A Community Advisory Committee (CAC) was formed which includes key stakeholders in early childhood at the local and state levels.
- The CAC was involved in identifying and framing the research topic and the design of all study methods.
- The resultant 2-year intervention will assist early childhood center directors and caregivers in informed, tailored goal setting and revision or creation of policies for improving healthy eating and PA environments.

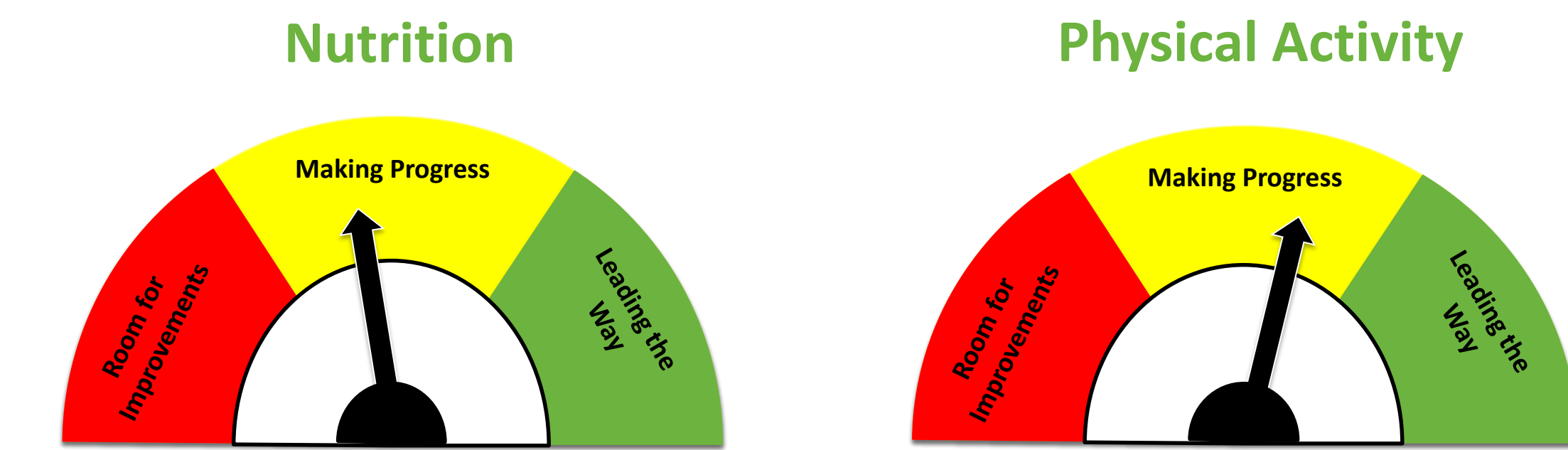
### Intervention Steps



## Results



## Interpretation



### Specific areas for improvement in Nutrition:

- Increase availability of whole grains and low-fat meats
- Create a healthier environment around nutrition
- Increase training & education for children, staff, and families

### Specific areas for improvement in PA:

- Improve access to fixed play equipment to increase physical activity in children
- Increase training & education for children, staff, and families
- Guide centers in writing policies around physical activity

## Next Steps

### Implement the 2 year Intervention:

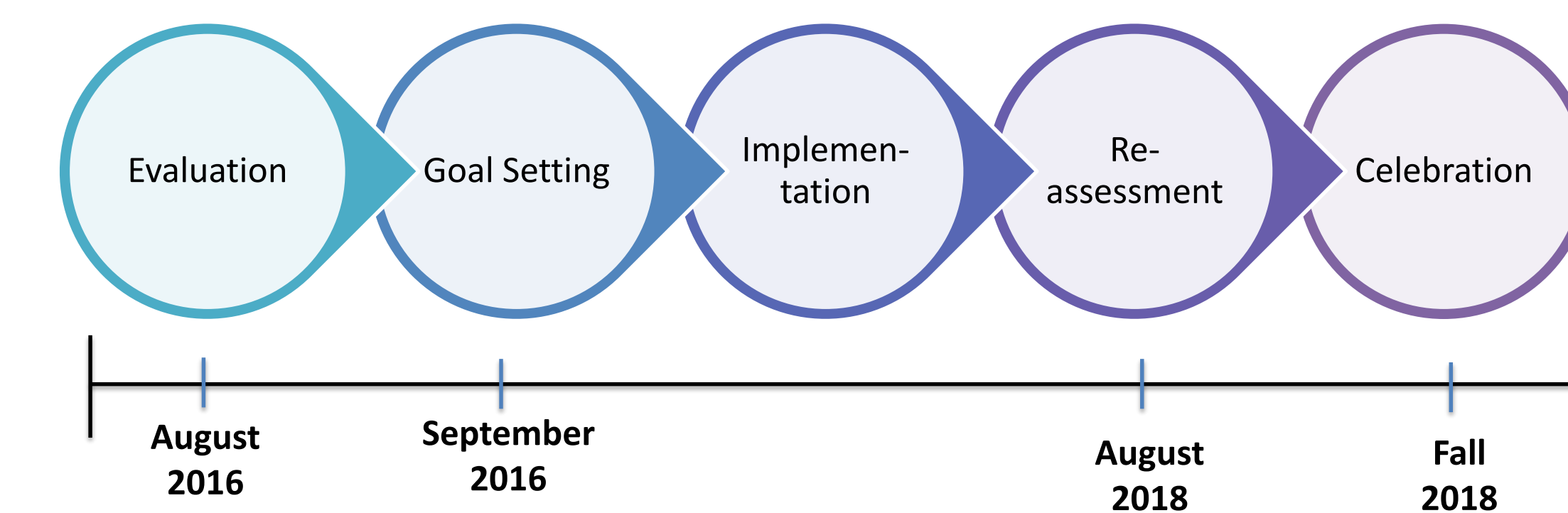
- Tailored goal setting
- Technical assistance and resources
- Quarterly networking sessions to guide center directors in making decisions that support healthier environments

### Follow-up data collection:

- Reassessment in August 2018

### Celebration

- After the 2-year intervention, LiveWell Greenville will celebrate the successful changes the early childhood centers have made and empower them to continue their commitment to laying healthy foundations in Greenville's youngest children.



## Summary

The preliminary evaluations of sites indicate the need for improvement with physical activity and nutrition variables in Greenville county early childhood childcare centers. As 12.8% of 2-5 year olds in South Carolina are overweight or obese, intervening early is necessary. Making the healthy choice the easy choice in the first five years of life is an important step in improving the health of Greenville county.



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