

## Farm to Belly

**Program Goal:** Increase Physical Activity and Health Eating Behaviors

**Short Summary:** Farm to Belly is a 28-week fresh-produce program at SHARE Head Start Centers in Greenville, SC. Head Start Centers are federally-funded preschools for low-income children ages 3-5. Farm to Belly is a multifaceted program emphasizing moving and learning, growing, cooking and sharing food.

The program focuses on four key areas: 1) in the home – the project supplies children with fresh fruits and vegetables in culturally diverse, nutritionist-designed, child-focused recipe kits at no cost, intended to encourage family food preparation at home; 2) at the market – a produce “market” with a variety of fruits and vegetables reflecting the recipe kits’ contents is set up at the child center for children and their caregivers to “purchase” at no cost with program tokens; 3) in the classroom – teachers have been trained to use the Choosy curriculum and to facilitate Choosy music and movement activities in the classroom every day and trainers facilitate workshops and cooking demonstrations at the monthly parent meetings; and 4) in the garden – children help plant and manage raised bed vegetable gardens and engage in a variety of garden activities.

**Target Settings** (urban, suburban, and/or rural): Urban

**Target Groups served:** Farm to Belly serves students of the White Horse Road-corridor, an area where nine out of 10 students live in poverty. Most of the SHARE Head Start children live in homes in a USDA Designated “Food Desert”, defined by the USDA as “being more than one mile walking distance to markets selling culturally-appropriate, fresh produce”. The food desert issue causes families of these children to have limited access to healthy food options. The majority of their food purchases come from convenience or dollar stores, which inventory only shelf-stable (i.e. highly processed) foods that are high in sodium, sugars and fat and synthesized chemicals. Families shop in these stores with limited culturally appropriate produce and utilize the Supplemental Nutrition Assistance Program (SNAP), the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) and other financial assistance in their weekly food budget.

**Schools/Districts served:** Greenville

**Research:** National and state level research was considered during the development of this program. “I Am Moving, I Am Learning” (IMIL) is an innovative, proactive, research-based approach addressing childhood obesity in Head Start children. Farm to Belly utilizes Choosy Kids, LLC, IMIL program. A vast body of knowledge identifies obesity as a growing public health concern. The program and its evaluation are grounded in research that identifies various neighborhood environments, including the community, school, and home, as being particularly influential to weight status. Research supports the Farm to Belly program’s ecological model which underscores the importance of home and school environments on child health. Further research has also suggested that families living in areas with community gardens had a high fruit and vegetable intake compared to those in areas without community gardens. Preschools have been identified as an appropriate setting to begin obesity prevention interventions because research estimates that lower income young children spend as much as 50-75% of their time in a preschool setting.

Farm to Belly involvement of parents in the program is also grounded in research; numerous studies have found that children are less likely to be obese when their parents play actively with them, transport them to a place where they can be physically active, provide positive

reinforcement of physical activity, and model health eating behaviors themselves.

**Evaluation:** Evaluation activities have focused on assessing implementation and outcome effects of the program. Implementation outcomes were found through process evaluation measures, which asked questions like, “What factors at Head Start Center(s) influenced implementation? To what extent did teachers participate? To what extent were planned activities implemented as intended?” Short-term and medium-term outcomes were assessed through an outcome evaluation, which asked questions like, “To what extent do children recognize Choosy program symbols? To what extent have children’s eating behaviors changed from pre to post program?” Data collection methods included a documentation of training activities/materials distribution and staff records, semi-structured interviews with parents and staff, child interviews, lunch observations, and parent surveys about child eating behaviors. Data collection began in October 2015 and continued throughout the 2015/16, 2016/17, and 2017/18 school years. Findings from 2017/18 show that the Choosy character associated with this program was recognized by most students during 94% of 2018 classroom observations. Children improved their ability to correctly identify fruits and vegetables. Lunch observations indicated that children increased their willingness to try/eat eight out of ten vegetables. The only two vegetables that did not have increase in consumption were carrots and green beans, however over 60% of children consistently ate these vegetables. Only 17% of parents reported having a home garden; but 62% want to learn more about garden. 88% of parents reported preparing meals together as a family at least once or twice per week, and 90% of parents reported eating meals together as a family at least 3-5 days per week. 86% of parents reported that their child played outside two or more days per week.

**Annual Cost:** \$ 150,000

**Funding Sources:** GHA grant \$28,000/yr

**Staffing needs:** One full-time project coordinators (pgrm logistics, outreach); student volunteers (planting, teaching); evaluation team Infrastructure/Equipment needs: Two-day staff training session; Classroom materials (binders, Choosy character cut-outs, posters, stickers, staff t-shirts, music cd’s, kids hero capes); Recipes and market materials (produce, Thrive Upstate labor and delivery, print materials, food equipment supplies, dry goods, market tents, kids stickers/stamp, tokens); Garden (tools, soil, mulch, kids activity props, seeds, water system); Marketing materials (website maintenance, brochure, flyers staff/volunteer/donor t-shirts).

**Partner Organizations:**

- Thrive Upstate: a local non-profit that provides people with disabilities and special needs with meaningful services, opportunities, and support, so they may thrive in life, work and play.
- Feed and Seed: a food hub non-profit that provides opportunities for local farmers and other growers to sell their produce locally.
- Spinx: a local gas station chain that provides a location for healthy foods to be sold in the community. Francis Produce: produce supplier.
- Loaves and fishes: a local non-profit that rescues food that would otherwise be wasted and delivers it to organizations equipped to feed the hungry.
- Hispanic Alliance: translates materials and recruits bilingual volunteers.

**Name:** Kerry McKenzie

**Title:** Obesity Prevention Program Coordinator

**Organization:** Bradshaw Institute for Community Child Health & Advocacy, Children’s Hospital of Greenville Health

**System Phone number with area code:** 864-498-3140

**Email:** kmckenzie@ghs.org

**Website:** ghschildrens.org

**Links to other information, i.e., news articles, videos, etc.:**

<http://choosyfarmtobelly.org/testimonials.html>

<http://wspsa.com/2016/05/05/ghs-creating-choosy-kids-through-healthy-eating-initiative/>

<https://greenvillejournal.com/2016/05/12/ghs-nutrition-program-builds-healthier-habits-preschoolers/>