

Report to the Texas Legislature

Early Childhood Health and Nutrition Interagency Council

November 1, 2016



Senate Bill 395

This report was ordered by Senate Bill 395 of the 81st Regular Session of the Texas Legislature and represents a collaboration of these State Agencies



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Executive Summary

Background

Senate Bill 395, passed during the 81st Regular Session of the Texas Legislature, created the Early Childhood Health and Nutrition Interagency Council (ECHNIC) (the Council) to improve the health of Texas infants and children under the age of six. The Council was tasked with reviewing current research and making recommendations for improving the health of Texas children under the age of six. The Council centralizes the efforts of Texas state agencies to combat childhood obesity and address malnutrition and undernourishment by involving children, parents, families, caretakers and communities.

Issues

Teaching the youngest Texans how to eat right and exercise and addressing barriers that prevent them from doing so will benefit the state far into the future. Children and adolescents who are obese or overweight can carry poor health and nutrition habits into adulthood. The future implications for physical inaction include a wide range of economic, social and political consequences. Today, forming good health habits at an early age means giving parents and child care providers the tools they need to feed children healthy meals and to incorporate exercise into their daily routines. Improving infant health also means encouraging parents to make breast milk available to their children.

A wide range of environmental factors can influence a child's risk for obesity in the first years of life. While important steps have been taken to reduce the incidence of obesity in the general population, many national efforts to prevent obesity overlook infants, toddlers and preschool children. Understanding the implications of that oversight and preventing its continuation is imperative.¹

Texas has made great strides in educating parents and child care providers about the steps needed to improve health and nutrition for children under the age of six. Statewide initiatives, education efforts and research endeavors have improved nutrition and increased physical activity for many young Texans. Despite considerable progress, barriers to realizing the Council's charge remain.

The Council has updated the following recommendations to advance Texas efforts in improving early childhood health and nutrition.

2016 Recommendations of the Early Childhood Health and Nutrition Interagency Council

- Provide statewide support and recognition of the Texas Mother-Friendly Worksite program that provides businesses with a written policy of support of breastfeeding for employees, including suitable accommodations and flexible scheduling for breastfeeding or milk expression.
- Provide statewide support of the Texas Ten Step Program that recognizes hospitals and birthing facilities that address 85 percent of the "Ten Steps to Successful Breastfeeding" and provide technical assistance to help facilitate earning the Baby Friendly designation.

- Provide statewide support and implement a campaign to increase awareness of and access by eligible participants to nutrition assistance programs such as the Child and Adult Care Food Program (CACFP), the Supplemental Nutrition Program for Women, Infants and Children (WIC) and the Nutrition, Supplemental Nutrition Assistance Program (SNAP) and Supplemental Nutrition Assistance Program Education (SNAPEd) that provides guidance for improving nutrition and health in early childhood settings.
- Align nutrition standards and meal patterns between CACFP and Texas Department of Family and Protective Services (DFPS) Child Care Licensing (CCL) for consistency and improved nutrient quality across all child care facilities preparing foods for infants and children under the age of six.
- Continue efforts with DFPS CCL to include additional minimum physical activity standards in child care facilities for infants and children under the age of six.
- Provide support to the DFPS CCL in training child care providers on how to support breastfeeding duration and exclusivity in child care facilities and improve DFPS CCL minimum standards for breastfeeding supportive child care practices.
- Provide support for increasing Establishing 3 E's (education, exercise and eating right) state grants. A program that incentivizes nutrition education, physical activity, healthy eating and improving the child care environment in any child care institution.
- Determine a system for assessing and monitoring physical activity trends using "The Child Care Centers/Homes Physical Activity Self-Assessment Survey" in child care settings for infants and children under 6 years of age to establish baseline data for: number of minutes of structured and unstructured physical activity, frequency and duration of screen time, and barriers to physical activity.

Introduction

Texas Senate Bill 395, introduced by Senator Eddie Lucio, Jr., and Representative Eddie Lucio, III, during the 81st Texas Legislature called for the creation of a council to improve the health of Texas infants and children under the age of six by addressing the nutrition and physical activity practices in early childhood care settings.

The Council has been tasked with using its findings to provide the legislature with recommendations for removing barriers to improving nutrition and physical activity standards in early childhood care settings to lower the incidence of childhood obesity and food insecurity.

As mandated by SB 395, a council was formed with representatives from seven state agencies:

- Texas Department of Agriculture (TDA)
- Texas Department of State Health Services (DSHS): The Supplemental Nutrition Program for Women, Infants and Children (WIC) and Health Promotion and Chronic Disease Prevention Section (HPCDPS)
- Texas A&M AgriLife Extension Service

- Texas Workforce Commission (TWC)
- Texas Department of Family and Protective Services (DFPS)
- Texas Health and Human Services Commission (HHSC)
- Texas Education Agency (TEA)

These agencies have authority and expertise in the areas of infant and early childhood nutrition, physical activity and health. Each agency's commissioner or director appointed the corresponding representative.

SB 395 required the Council to ask for input and participation from stakeholders in at least two Council meetings each year. The Council was required to invite at least six stakeholders with expertise in areas such as early childhood nutrition, child care, physical activity, community health and pediatric medicine. Stakeholders contributed outcomes specific to their programs and/or profession through surveys, data collection and evaluations which are noted in the report.

Early Childhood Nutrition and Physical Activity Six-Year Plan

The Council's six-year plan calls for creating an evidence-based approach to promoting best practices for improving early childhood health through good nutrition and physical activity for children under the age of six. The Council was tasked with improving the health of young children in the state of Texas by centralizing efforts among Texas state agencies to combat childhood obesity, address malnutrition and undernourishment by involving children, parents, families, caretakers and communities. The Council reviewed existing standards for early childhood care settings and examined state programs that promote good nutrition and physical activity in early childhood. The Council and stakeholders used the information to prepare the six-year Early Childhood Nutrition and Physical Activity Plan. The six-year plan included numerous objectives, strategies and action steps for each council member and stakeholder to research and pursue. The plan was developed and approved by majority vote of Council members in July 2010 and submitted to the Texas Legislature and Governor November 2010.

As mandated by SB 395, the six-year plan included recommendations to:

- Facilitate the consumption of breast milk in early childhood care settings
- Increase awareness among parents of the benefits of breastfeeding, healthy eating and appropriate activity in children under the age of six
- Increase fruit and vegetable consumption among children under the age of six
- Increase daily structured and unstructured physical activity in early childhood care settings
- Decrease malnutrition and undernourishment among children under the age of six
- Engage existing community and state resources and service providers to educate and increase the awareness of parents and caretakers regarding the need for proper nutrition

Sec. 115.011 of SB 395 requires the Council to submit a written report to both houses of the Texas Legislature and the Governor on or before November 1 of each even-numbered year beginning in 2012. This report satisfies the 2016 requirement and includes:

- The actions taken in furtherance of the six-year plan

- The areas that need improvement in implementing the six-year plan
- The programs and practices that address nutrition and physical activity in early childhood care settings in the state

Data gathered in the past year from outcomes in the six-year plan were used to prepare the following report. These outcomes highlight the successes and opportunities the state agencies and stakeholders have promoted to:

- Increase access to breast milk, whether direct-fed, expressed, or donor milk
- Increase consumption of fruits and vegetables
- Increase physical activity for infants and children under the age of six
- Increase awareness of nutrition assistance programs

The Council members and stakeholders gathered information from current data, surveys of existing programs, previous studies and held collaborative public meetings in 2012, 2013, 2014, 2015 and 2016 to discuss and compile the information contained in this report. Background material and meeting minutes for the preparation of this report may be obtained by contacting TDA at (877) TEX-MEAL.

Organization of the Report

This report explains the Council’s work in furtherance of the approved Early Childhood Nutrition and Physical Activity Six-Year Plan by listing the action steps found in the plan followed by background information related to the action step and the Council’s response since November 2014. The responses include information submitted by state agency representatives and stakeholders that show successes, relevant data and other detailed information. For this report, each piece of the six-year plan will be organized in the following way:

- Action step from the approved Early Childhood Nutrition and Physical Activity Six-Year Plan followed by the description as it appears in the plan
- 2014 ECHNIC recommendations
- Background information and research relating to the action step
- Actions taken in furtherance of the six-year plan from April 1, 2014 – March 31, 2016

Childhood Health and Nutrition: Definitions

Phases in Early Childhood

Because of significant changes during the formative years of early childhood, the terms describing the different age groups need to be specific. This report uses the terms from The Minimum Standards for Child Care Centers Definitions of Terms from DFPS, and they are as follows:ⁱⁱ

- **Infant** — from birth to 17 months
- **Toddler** — from 18 months through 35 months
- **Pre-kindergarten age** — three and four years of age
- **Kindergarten age** — at least five years of age on Sept. 1

- **School age** — five years old or older and will attend school in August or September of that year

Levels of Activity in Early Childhood

In an early childhood care setting, the caregiver can control a child’s level of physical activity. It is important that any physical activity is age appropriate. According to the “Physical Activity Definitions from National Policy & Legal Analysis Network to Prevent Childhood Obesity” (NPLAN) the following are definitions used for physical activity:ⁱⁱⁱ

- **Physical activity** — any bodily movement produced by skeletal muscles that result in energy expenditure.
- **Structured physical activity** — developmentally appropriate physical activity that is guided by the caregiver.
- **Unstructured physical activity** — child-initiated physical activity that occurs as the child explores his or her environment.

Food Insecurity and Hunger

In 2011 more than a quarter of children in Texas are food insecure.^{iv} Definitions of food insecurity and hunger are as follows:

- **Food insecurity** — is the condition as assessed in the food security survey and represented in USDA food security reports as a household-level economic and social condition of limited or uncertain access to adequate food
- **Hunger** — an individual-level physiological condition that may result from food insecurity or prolonged, involuntary lack of food; results in discomfort, illness, weakness, or pain that go beyond the usual uneasy sensation^v

Childhood Overweight and Obesity

The Centers for Disease Control and Prevention (CDC) uses Body Mass Index (BMI) to determine a child’s overweight or obesity level.^{vi} Important information regarding BMI includes:

- BMI at or above the 85th percentile but below the 95th percentile is the overweight category.
- BMI at or above the 95th percentile is the obese category.

Breast Milk and Breastfeeding

Breast milk is human milk fed directly from the breast or expressed and fed via bottle, cup, or other device and contains nutrients that closely match infant requirements for brain development, growth, and a healthy immune system. Human milk also contains immunologic agents and other compounds that act against viruses, bacteria, and parasites.

World Health Organization (WHO) Breastfeeding Terminology^{vii}

Exclusive Breastfeeding

- Requires that the infant receive breast milk (including milk expressed or from a wet nurse)
- Allows the infant to receive medically necessary drops, syrups (vitamins, minerals, medicines)
- Does not allow the infant to receive anything else

Predominant Breastfeeding

- Requires that the infant receive breast milk (including milk expressed or from a wet nurse) as the predominant source of nourishment
- Allows the infant to receive liquids (water and water-based drinks, fruit, juice, oral rehydration solution), ritual fluids and drops or syrups (vitamins, minerals, medicines)
- Does not allow the infant to receive anything else (in particular non-human milk, food-based fluids)

Complementary Feeding

- Requires that the infant receive breast milk and semi-solid or solid foods
- Allows the infant to receive any food or liquid including non-human milk

Breastfeeding

- Requires that the infant receive breast milk
- Allows the infant to receive any food or liquid including non-human milk

Breastfeeding Peer Counselors

- Provide basic breastfeeding support

International Board Certified Lactation Consultants

- Assist moms with more complicated issues

The American Academy of Pediatrics (AAP)

- Recommends exclusive breastfeeding through 6 months of age, at which point other foods can be introduced slowly. The AAP recommends then continuing breastfeeding through 12 months of age or longer at the discretion of the breastfeeding mom.

Child Care Facilities and Caregivers

Child care in early childhood can range from the parents or grandparents caring for a single child to a network of centers in different locales overseeing the care of hundreds of children. The licensing division of DFPS oversees these facilities using *The Minimum Standards for Child-Care Centers*. For this report, the current DFPS descriptions from its *Definitions of Terms* will be used.^{viii}

- **Caregiver** — A person whose duties include the supervision, guidance and protection of a child or children
- **Center-based** — A type of child day care in which the operation is licensed to care for seven or more children for less than 24 hours per day

- **Child care center** — A child day care operation that is licensed to care for seven or more children for less than 24 hours per day, at a location other than the permit holder's home
- **Child care home** — The registered primary caregiver provides care in the caregiver's own residence for not more than six children from birth through 13 years, and may provide care after school hours for not more than six additional elementary school children. The total number of children in care at any given time, including the children related to the caregiver, must not exceed 12. The term does not include a home that provides care exclusively for any number of children who are related to the caregiver.
- **Child care facility** — An establishment subject to regulation by licensing that provides assessment, care, training, education, custody, treatment or supervision for a child who is not related by blood, marriage, or adoption to the owner or operator of the facility, for all or part of the 24-hour day, whether or not the establishment operates for profit or charges for its services. A child care facility includes the people, administration, and governing body, as well as activities on or off the premises, operations, buildings, grounds, equipment, furnishings, and materials.
- **Child day care** — The care, supervision, training, or education of an unrelated child or children under 14 years old for less than 24 hours per day that occurs in a place other than the child's own home. This definition includes child day care provided to school-age children before the customary school day, after the customary school day, or both.
- **Children who are related to the caregiver** — Children who are the children, grandchildren, siblings, great-grandchildren, first cousins, nieces, or nephews of the caregiver, whether by affinity (marriage), consanguinity (blood) or as the result of a relationship created by court decree
- **Home-based care** — A type of child day care in which the operation is licensed or registered to care for up to 12 children for less than 24 hours per day
- **Licensed child care home** — A child day-care operation that is licensed. The primary caregiver provides care in the caregiver's own residence for children from birth through 13 years. The total number of children in care varies with the ages of the children, but the total number of children in care at any given time, including the children related to the caregiver, must not exceed 12.
- **Listed family home** — A child day care operation that receives a listing permit. The caregiver is at least 18 years old and provides care for compensation in the caregiver's own home, for three or fewer children unrelated to the caregiver, birth through 13 years. Care is provided for at least four hours a day, three or more days a week, and for more than nine consecutive weeks. The total number of children in care, including children related to the caregiver, may not exceed 12.
- **Parent** — A person who has legal responsibility for or legal custody of a child, including the managing conservator or legal guardian

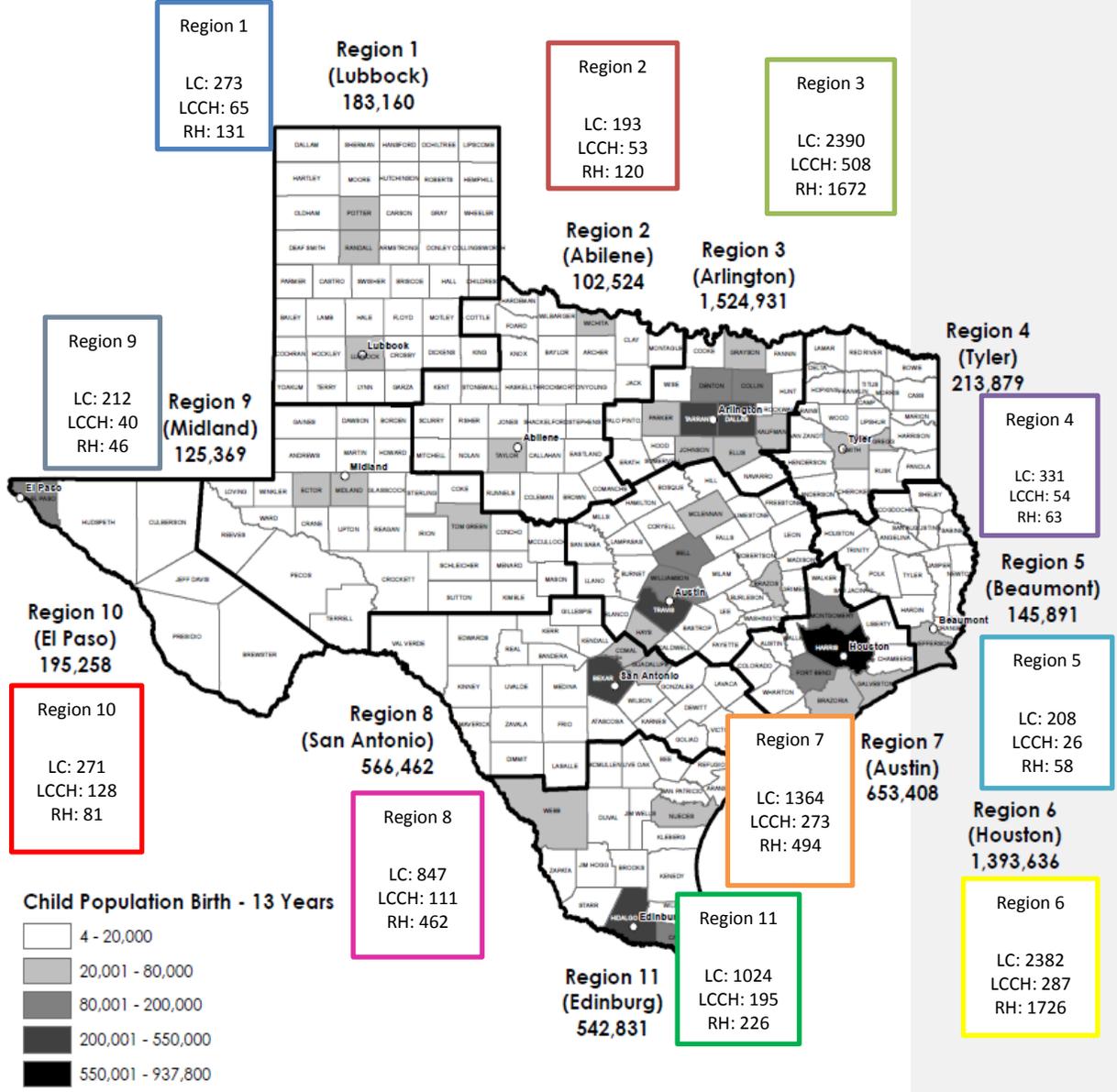
- **Primary caregiver** — the permit holder for a licensed or registered child-care home. The primary caregiver is the person with ultimate authority and responsibility for the child care home's overall operation and compliance with Chapter 747, Minimum Standards for Child-Care Homes, Licensing statutes, and DFPS rules. The primary caregiver must live in the home where the care is provided.
- **Regular care** — A child care arrangement in which care is provided at least four hours a day, three or more days a week, for more than nine consecutive weeks in a registered child care home or listed family home.

In FY 2015, Texas licensed 9,439 child care centers which represent a capacity for 1,009,157 children birth-age 14. In FY 2015, there were 720 licensed child care homes and 4,678 registered child care homes providing care to children, birth-age 14. Licensed Child Care Homes and Registered Child Care Homes represented a capacity to care for 69,683 Texas children in FY 2015. Equipping these children with good nutrition habits could have an impact on Texas health costs for years to come.

**Texas Child Population
Ages Birth through 13 Years
Fiscal Year 2015**

Legend: Licensed Center= LC
Licensed Child Care Home= LCCH
Registered Child Care Home= RH

State Total: 5,647,349



Breastfeeding:

Currently, DFPS minimum standards for child care centers require a comfortable area other than a restroom be established for breastfeeding. Classrooms are required to have an adult sized chair in the infant’s room for a nursing mother to comfortably breastfeed or pump breast milk.

Operations must have an open door policy allowing a mother access to breastfeed her child when needed. Other suggestions to provide additional support include providing:

- Pillow to support her infant in her lap

- Stepstool for her to prop her feet and prevent back strain
- Water or other liquid to help her stay hydrated

Actions Taken in Furtherance of the Six-Year Plan

Child Care Licensing is in the process of a comprehensive review of all minimum standards. A temporary workgroup, consisting of stakeholders representing, child care centers, homes, parents and advocates will convene and discuss updating standards that will include:

Subchapter Q, Nutrition and Food Service

Subchapter U, Indoor and Outdoor Active Play Space and Equipment

The group will make recommendations for or against any proposed changes that will then be submitted to the DFPS council in 2016.

Department of Family and Protective Services (DFPS)

DFPS CCL minimum standards require center and home-based child care providers to provide planned activities on a daily basis that include a variety of both child-initiated and caregiver-initiated activities. The subchapters of "Basic Care Requirements" for:

Infants, Toddlers, Preschoolers and School age children require activities that include: Infant opportunities for reaching, grasping, pulling up, creeping, crawling and walking in a safe, clean, uncluttered area; and daily opportunities for outdoor play as weather permits;. Children ages 18 months and older are required to have: opportunities for large-muscle development, opportunities for active play both indoors and outdoors, regular meal and snack times, and daily morning and afternoon opportunities for outdoor play when weather permits; morning and afternoon opportunities for outdoor play as well as opportunities for active play both indoors and outdoors on a daily basis.

Aligning nutrition standards and meal patterns between CACFP and Texas Department of Family and Protective Services (DFPS) Child Care Licensing (CCL) for consistency and improved nutrient quality across all child care facilities preparing foods for infants and children under the age of six will be a topic of discussion in the upcoming minimum standards workgroup.

CCL continues to partner with Texas A&M AgriLife Extension and offers a variety of online courses aimed at improving the child-health options available to child care providers and parents. Along with the online trainings AgriLife and CCL have worked together to produce valuable written TA on nutrition and physical activity (all available in English, Spanish and Vietnamese) that can be shared with providers at inspections, trainings and as requested.

DFPS CCL has established standards for screen time including televisions, computers or video games in a child care center. In the guidelines, screen time is prohibited for children under the age of 2. For children 2 years and older, televisions, computers or video games may be used to supplement, but not replace, activities. The guidelines also stipulate that any screen time must be related to the planned activities, age appropriate and must not exceed two hours per day. Children must be able to choose an alternate activity.

Actions Taken in Furtherance of the Six-Year Plan and Programs and Practices that Address Nutrition and Physical Activity in Early Childhood Settings in the State

In the eight years since the Council's creation, the state agencies and stakeholders participating on the Council have taken numerous steps to combat obesity and reduce food insecurity through outreach efforts that increase awareness of and access to nutrition-assistance programs for infants and children under the age of six.

The six-year plan divides the approach into action steps that address ways to increase breastfeeding; raise nutrition standards and increase physical activity in licensed child care facilities; increase consumption of fruits and vegetables for children under the age of six; and increase structured and unstructured moderate to vigorous physical activity requirements that simultaneously reduce screen time for infants and children under the age of six at licensed day care centers and homes. Following are the action steps, background information and The Council's actions in furtherance of the six-year plan.

Action A: Increase Breast Milk Consumption and Breastfeeding

Increase the health and well-being of infants by promoting awareness among parents, families, caretakers and communities about the benefits of breastfeeding and facilitate the consumption of breast milk in early childhood care settings.

Recommendations in 2014 Legislative Report

- Provide statewide support and recognition of the Texas Mother-Friendly Worksite program that provides businesses with a written policy supporting breastfeeding for employees, including providing suitable accommodations and flexible scheduling for breastfeeding or milk expression.
- Support statewide the Texas Ten Step Program, a statewide effort to improve infant health and increase rates of exclusive breastfeeding. The program recognizes hospitals and birthing facilities that address 85 percent of the "Ten Steps to Successful Breastfeeding" and provide technical assistance to help facilitate earning the Baby Friendly designation.
- Provide support to the DFPS CCL in training child care providers on how to support breastfeeding duration and exclusivity in childcare facilities and improve DFPS CCL minimum standards for breastfeeding supportive child care practices.

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Texas recently saw substantial increases in breastfeeding rates reflected by the Centers for Disease Control's National Immunizations Survey. While Texas is closer to meeting Healthy People 2020 targets for breastfeeding, rates still fall short of medical recommendations to exclusively breastfeed for six months and continue breastfeeding through at least the first year of life.

| HP 2020 Objective Increase the proportion of women who breastfeed. | | Texas* | |
|--|-------|--------------------|--------------------|
| Targets | | 2012 births | 2011 births |
| Ever Breastfed | 81.9% | 83.3% | 78.4% |
| Breastfed@ 6mo. | 60.6% | 52.1% | 42.9% |
| Breastfed@ 12mo | 34.1% | 26.9% | 20.9% |
| Exclusive @ 3mo. | 46.2% | 43.7% | 38.9% |
| Exclusive @ 6 mo. | 25.5% | 21.3% | 16.8% |

*Centers for Disease Control and Prevention, National Immunization Survey

Mother-Friendly Worksite

DSHS promotes awareness to the community about the benefits of breastfeeding through the Texas Mother-Friendly Worksite (TMFW) designation. This is a recognition program that provides businesses with a written policy of support of breastfeeding for employees. To earn the designation, businesses must also provide suitable accommodations and flexible scheduling for breastfeeding or milk expression. The designation was developed to fulfill requirements of Texas Health and Safety Code 165.003, Breastfeeding. DSHS was directed to establish recommendations supporting the practice of worksite breastfeeding and to maintain a registry of worksites that have a written breastfeeding policy addressing the recommendations, including provision of: work schedule flexibility for expression of milk; accessible locations allowing privacy; access to clean running water; and access to hygienic storage alternatives for storage of mother’s breast milk. The TMFW Technical Assistance and Support Program (TMFW-TASP) was launched in the fall of 2015 to expand capacity for outreach and assistance to employers for development and implementation of Mother-Friendly policies. House Bill 786 was passed in the 84th Regular Session (2015) of the Texas Legislature to add Government Code 619 relating to the right of a public employee to breastfeed or express breast milk for the employee’s child in the workplace. Public employers are required to develop a written policy providing accommodations to express breastmilk during the work day including break time and private space for women who want to continue breastfeeding after returning to work from maternity leave. Additionally, public employers may not discriminate, suspend, or terminate employment based on the employee’s right to breastfeed or express breast milk in the workplace. The department designated 515 new TMFW organizations between April 30, 2014 and April 1, 2016 bringing the total number of designated sites to 2,295 Texas worksites currently registered in the program. Many public employers have achieved designation, including eight municipalities (the cities of San Antonio, Austin, Edinburg, Leander, Keller, Sunset Valley, Cibilo, and Missouri City), four counties (Tarrant, Jasper, Newton, and Wood), three school districts (Daingerfield-Lone Star, Austin, Winnsboro, Independent School Districts), and many local public health departments, public hospitals and health districts, state agencies, and state universities.

Work Well Texas

The DSHS Obesity Prevention Program, formerly the Community and Worksite Wellness Program, redesigned and rebranded the state worksite wellness resource page in 2015. Formerly

Building Healthy Texans, the site is now called [Work Well Texas](http://www.wellness.state.tx.us/WorkWellTexas). The site makes the business case for a wellness program, provides steps to help organizations launch a wellness program, and features information and a link to the Texas Mother-Friendly Worksite web page. The Work Well Texas breastfeeding resources page is at <http://www.wellness.state.tx.us/Breastfeeding.htm>.

Worksite Wellness Survey

DSHS Obesity Prevention Program engaged private worksites in Texas during 2015, collecting data on wellness programs and policies, including mother-friendly practices. Results were disseminated in a summary report and highlighted in a session at the 2016 Texas Business Group on Health conference. Technical assistance with enhancing mother-friendly programming as well as other wellness program components remains available to survey respondents.

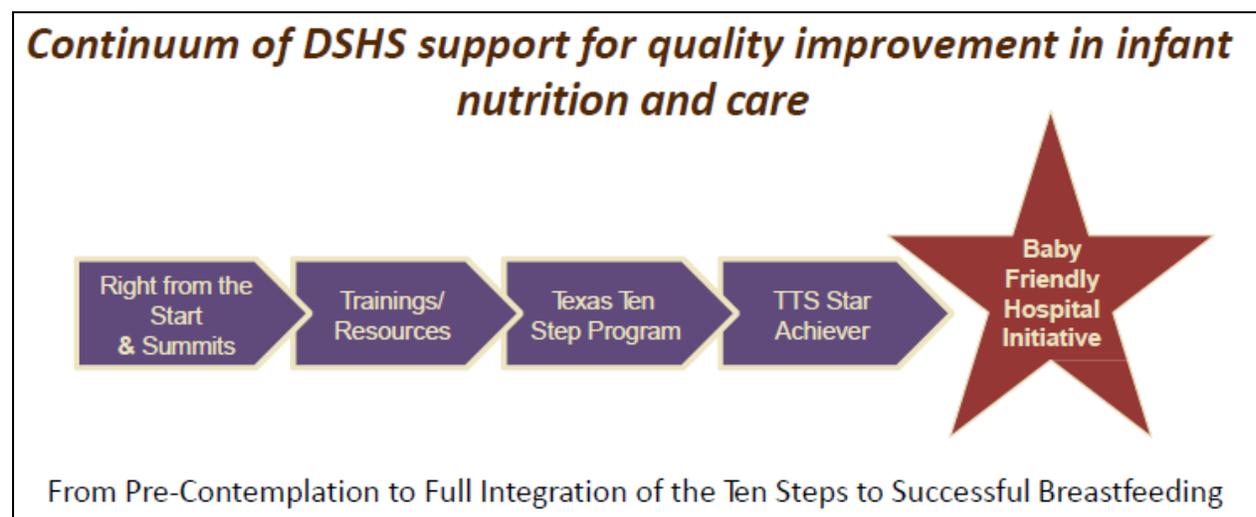
Texas Healthy Communities Program

The Texas Healthy Communities Program, administered by the DSHS Cardiovascular Disease and Stroke Program, assists communities to assess their environments and to implement local environmental, policy, and systems changes to promote public health practices proven to reduce risk factors for chronic disease. After completing the assessment, communities developed work plans and implemented initiatives. One of the eight assessment indicators is support for breastfeeding. Texas Healthy Communities conducted one assessment cycle in FY 2015 using the following questions related to the Texas Mother-Friendly Worksite Program:

- How many of the worksites in your city are designated as a Mother-Friendly Worksite?
- Is your city or municipality designated as a Mother-Friendly Worksite?

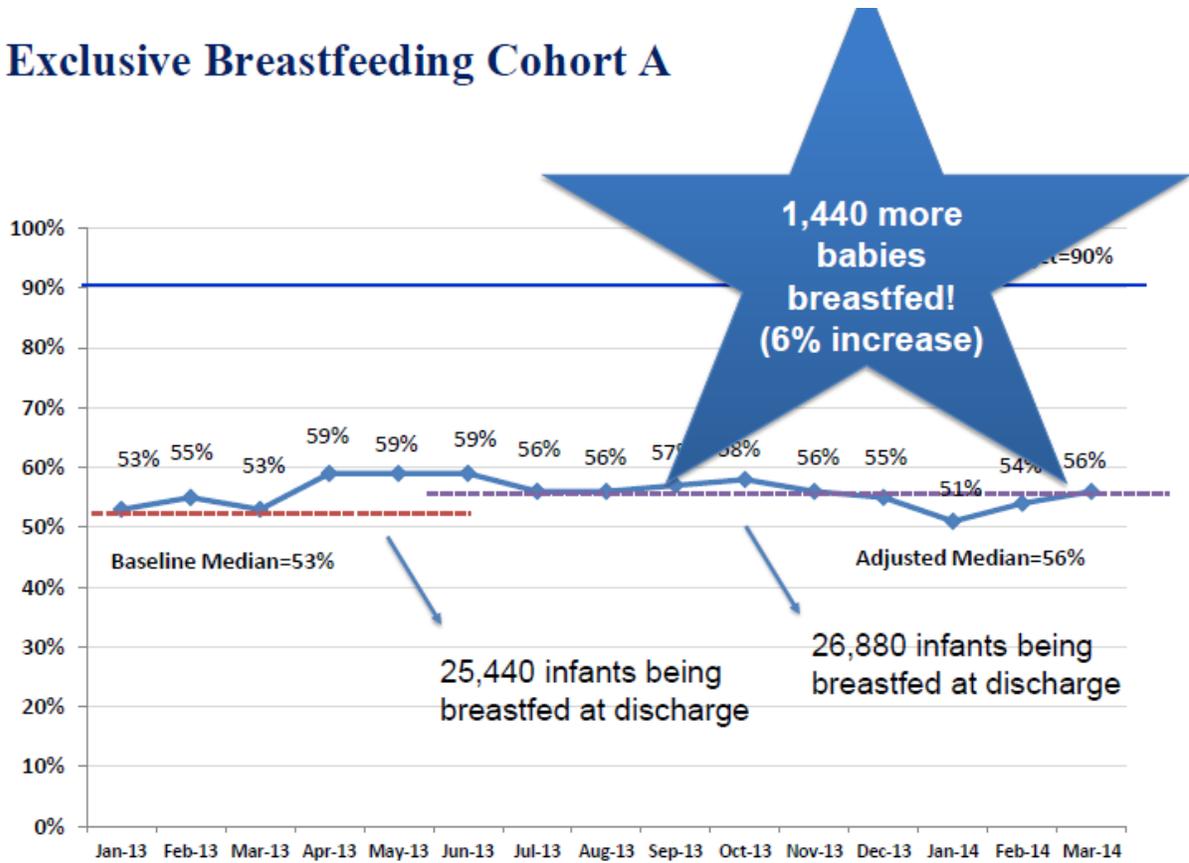
Baby Friendly Hospital Initiative Continuum / Texas Ten Step Star Achiever Program

DSHS is engaging more hospitals in efforts to move facilities along the continuum of support for quality improvement in infant nutrition and care. These efforts help birthing facilities achieve Baby-Friendly designation, which recognizes full adoption of the Ten Steps to Successful Breastfeeding, and improve exclusive breastfeeding rates at discharge. DSHS added Hospital Summits to the first phase of the continuum in 2015, and offered Summits in Dallas and San Antonio, with 95 administrators, physicians and nurse managers attending.

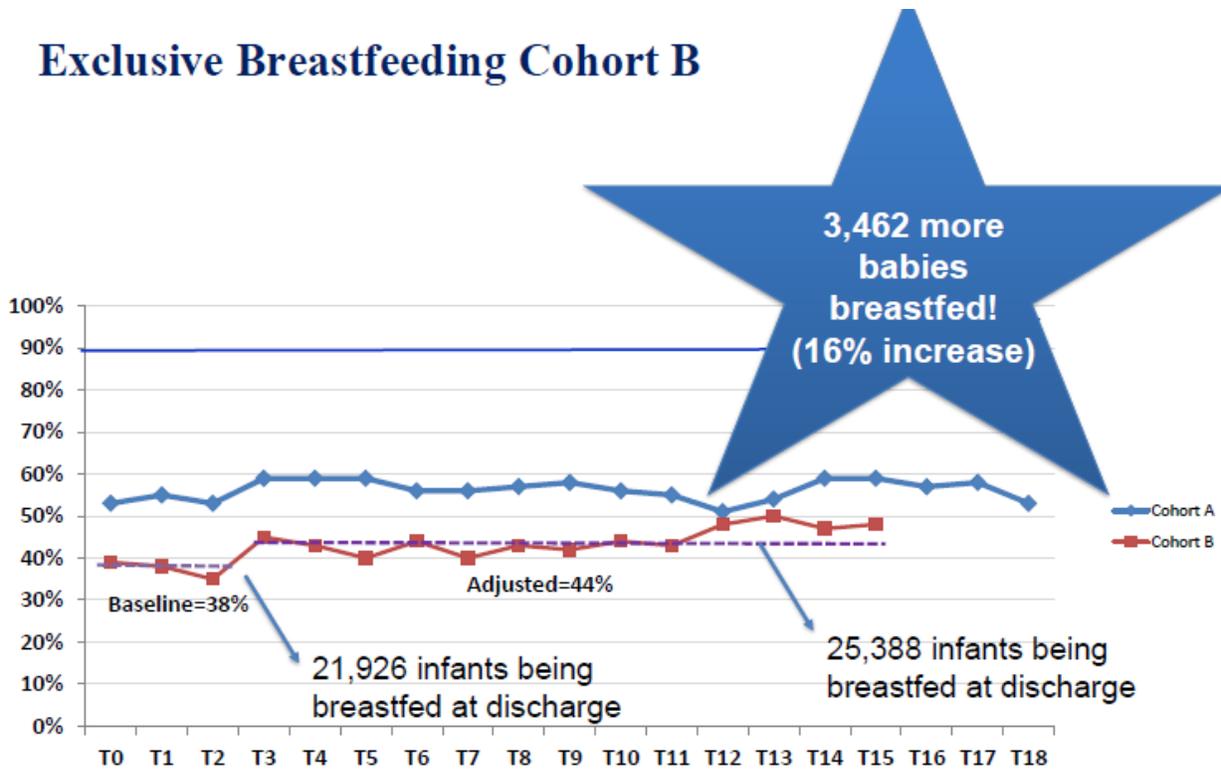


DSHS designated an additional 7 TTS facilities between March 31, 2014 and April 1, 2016 with 113 designated facilities in total. DSHS engaged an additional 21 hospitals in Cohort B of the Texas Breastfeeding Learning Collaborative and currently has 33 hospitals engaged in Cohort C.

Exclusive Breastfeeding Cohort A



Exclusive Breastfeeding Cohort B



In addition, DSHS encouraged Texas facilities to apply to participate in other quality improvement initiatives designed to accelerate adoption of the Ten Steps. The other initiatives include:

- *Communities and Hospitals Advancing Maternity Care Practices (CHAMPS)*- funded by the W.K. Kellogg foundation, focuses on hospitals in select states, including five facilities in Texas, with a goal to help at least 10 facilities obtain BFUSA designation. Additional goal includes assisting hospitals to establish community-based breastfeeding support groups.
- *Enhancing Maternity Practices (EMPower)*- funded by the Centers for Disease Control and Prevention, aims to assist 95 hospitals across the nation to achieve BFUSA designation. Six Texas facilities are currently engaged in this initiative.

Currently, 77% of all Texas births are occurring in hospitals that are either designated as Baby Friendly or are officially working towards the designation through the Baby Friendly 4D pathways, the Texas Ten Step program, or one of the quality improvements collaborative. Nine additional hospitals were designated as Baby Friendly between April 20, 2015 and April 1, 2016. WIC provided 7,766 community-based breastfeeding training between April 30, 2014 and April 1, 2016. Attendees included WIC staff, nurses, doctors, dietitians, and International Board Certified Lactation Consultants.

WIC is continuing to provide the Prenatal Breastfeeding Education bags to all pregnant participants, regardless of their infant-feeding intent. WIC provided over 300,000 prenatal bags to pregnant WIC participants between April 30, 2014 and April 1, 2016.

WIC conducted [2014 Cumulative Research on Breastfeeding Disparities Impacting African American & Hispanic Women](#) in the Summer of 2014. Researchers asked focus group participants to recall the breastfeeding education they received from WIC in the prenatal period and what challenges they faced after initiating breastfeeding. There was high recall of the benefits of breastfeeding and the contents of Prenatal Breastfeeding Education bag but focus group conversations revealed important aspects of breastfeeding that present challenges for both Hispanic and African American women, including:

- A lack of knowledge about the size of an infant’s stomach
- A lack of understanding about how much milk the baby needs
- Uncertainty about the amount of colostrum that is produced immediately after birth; and the amount of milk produced in the first few days and as time goes by
- Limited knowledge about the “supply and demand” concept of milk production
- Lack of understanding of the impact of introducing formula to their milk supply
- Unaware of the benefits of exclusive breastfeeding in the first month

WIC has implemented new clinic strategies and materials to address the challenges and is continuing to fund programs and efforts to move hospitals towards Baby Friendly designation as all of these challenges can be addressed through hospital implementation of the Ten Steps to Successful Breastfeeding.

The Texas Lactation Support Hotline expanded to 24/7 availability in January 2015.

WIC opened a fourth Lactation Support Center, the Lactation Care Center of Rio Grande Valley, in McAllen in July 2014. All four centers received additional grant funding from DSHS Family and Community Health Services in 2015 which enables the centers to offer their services to non-WIC-enrolled families starting in April 2015.

WIC expanded their Peer Dad program with Title V funding in 2015 and 2016. Six of 66 Texas WIC Agencies now have active Peer Dad programs. Peer Dads counsel other fathers on the importance of supporting breastfeeding and their roles in breastfeeding support.

Ten Steps to Successful Breastfeeding Online Training

The DSHS Obesity Prevention Program launched the Ten Steps to Successful Breastfeeding online training, hosted on the Texas Health Steps site, in the fall of 2015. The module helps to fulfill Step 2 of UNICEF and Baby-Friendly USA’s Ten Steps to Successful Breastfeeding, providing Texas hospitals with an accessible tool to work toward Baby-Friendly or Texas Ten Step designation. The module was developed in coordination with subject matter experts from the DSHS Office of Title V and Family Health, DSHS WIC, and the Texas Ten Step Program. The free training module provides comprehensive, professional, continuing education in a self-paced format and is available in three courses:

1. [Ten Steps to Successful Breastfeeding: Breastfeeding Overview](#)
2. [Ten Steps to Successful Breastfeeding: Birth Practices that Support Breastfeeding](#)
3. [Ten Steps to Successful Breastfeeding: Prenatal and Postnatal Practices that Support Breastfeeding](#)

Texas Healthy Communities Program

The Texas Healthy Communities Program, administered by the DSHS Cardiovascular Disease and Stroke Program, assists communities to assess their environments and to implement local environmental, policy, or systems changes to promote public health practices proven to reduce risk factors for chronic disease. One of the eight indicators is support for breastfeeding. Texas Healthy Communities conducted one assessment cycle in FY 2015 using the following questions related to the Texas Ten Step Program:.

- How many birthing facilities in your city are designated as TTS?
- Number of Ten Step facilities in low socioeconomic status ZIP codes

Interagency Obesity Council

The Texas Interagency Obesity Council consists of the Commissioners of DSHS, TDA, and TEA and works to submit a report of activities to the Legislature by January 15 of every odd-numbered year.^{ix} The Interagency Obesity Council report can be found at <http://www.squaremeals.org/Publications/Reports.aspx>. The DSHS Obesity Prevention Program (OPP) supports and promotes healthy eating and active living strategies in clinical, worksite, and early care and education settings:

DSHS's The Growing Community communications campaign and DSHS CWW highlight community-based change strategies in Texas using video clips that are six to eight minutes long and correspond to the CDC's six target areas for obesity prevention, one of which is a segment on breastfeeding. The videos are available in English and Spanish.

Growing Community Video Series

DSHS's The Growing Community communications campaign and DSHS OPP highlight community-based change strategies in Texas using video clips that are six to eight minutes long, one of which is a segment on breastfeeding. The videos are available in English and Spanish. The video series can be found at <https://www.dshs.texas.gov/GrowingCommunitySeries/>.

Department of Family and Protective Services (DFPS)

Currently, DFPS minimum standards for child care centers states a comfortable room other than a restroom must be established for breastfeeding. Providing a mother with a place to sit and breastfeed her child helps to support this practice. Use of an adult-size chair in the classroom meets the intent of this requirement. A place where mothers feel they are welcome to breastfeed or pump breast milk can create a positive environment when offered in a supportive way. Day cares should ensure that all staff receive training in breastfeeding support and promotions and are trained in the proper handling and feeding of each milk product, including human milk.^x Regarding breastfeeding policy, Standard 746.501(25) is in Subchapter B, Administration.

Other suggestions to provide additional support include providing:

- Pillow to support her infant in her lap
- Stepstool for her to prop her feet and prevent back strain
- Water or other liquid to help her stay hydrated

Prenatal Breastfeeding Promotion Project

Introduction: The American Academy of Pediatrics recommends infants be exclusively breastfed for at least 6 months. In Texas, only 50% of infants are breastfeeding at 6 months of age, and less than 15% exclusively. Because support from the healthcare team predicts mothers' breastfeeding practices, and breastfeeding reduces children's risk of obesity, the DFW Prenatal Breastfeeding Promotion Project aims to help obstetrics/gynecology (ob/gyn) practices promote breastfeeding education during the prenatal period and encourage expectant mothers to choose breastfeeding in an effort to reduce childhood obesity rates.

Methods: Our project team has trained physicians and staff at four ob/gyn practices to encourage proper breastfeeding preparation, initiation, and maintenance. Community resources such as support groups and breastfeeding classes were provided. Patients completed a first trimester survey prior to initial consultation with their physician and a third trimester survey. The surveys assessed knowledge, comfort, and plans regarding breastfeeding to assess the impact of the intervention on mothers' intentions to breastfeed.

Results: 95% of first trimester mothers and 85% of third trimester mothers reported they intended to breastfeed. 72% of first trimester mothers desired more information about breastfeeding, while those desiring more information decreased dramatically to 17% in the third trimester. Two-thirds of mothers felt they had adequate breastfeeding knowledge in the first trimester, while mothers who felt they had access to breastfeeding information increased to 81% in the third trimester. Over half of participants reported they would be more likely to breastfeed if their doctor recommended it. Of those whose doctor's recommendation would not make them more likely to breastfeed, the overwhelming majority (94%) said it was because they were already planning to breastfeed.

Conclusions: Although the vast majority of study participants intended to breastfeed, they desired more information about how to do it successfully. Our intervention has been successful in providing that information. Responses indicate that physicians' recommendations impact mothers' decision-making regarding breastfeeding. Future endeavors include elucidating the reason for the unexpected first-to-third trimester decrease in breastfeeding intention and assessing the specific informational needs of our study population.

Texas Early Learning Council

TEA, DFPS, and Head Start provided resources released in April 2013 by the Texas Early Learning Council (TELC). The TELC is currently inactive, but was made up of 18* members representing state agencies, IHEs, child cares and Head Start programs. The TELC developed the "Infant and Toddler, and Three-Year-Old Early Learning Guidelines" (ITELGS) which includes a Physical Health and Motor Development domain. This domain includes health and well-being, gross motor skills, fine motor skills and physical health and motor special needs scenarios. Additionally, the ITELGs have a breastfeeding section. This document was developed to be aligned with the Texas Prekindergarten Guidelines. The ITELGS and the Texas Core Competencies for Early Childhood Practitioners and Administrators have health, safety and nutrition components. The ITELG Mission, Vision, and Guiding Principles can be found at the [ITELG Initiative page](#). The Core Competencies are statements about the knowledge and skills that early childhood professionals should be able to demonstrate to be successful in their careers.

The Core Competencies are a critical piece of the Texas Early Childhood Professional Development System.

The TELC developed a statewide early childhood public awareness campaign available at www.littletexans.org, on the importance of early childhood and responsive caregiving. Television, radio, and internet ads ran at different locations throughout the state, encouraging adults to learn more about early childhood and ways they can support healthy development for the children in their lives. The campaign distributed 30,000 print copies of ITELGS, and used posters, fliers, PBS, and email blasts to publicize. The ITELGS manuals are now available for the cost of printing.

The Texas Early Childhood Program Standards Comparison Tool is a searchable database of early childhood program standards, categorized by topic. Federal and state program standards, as well as other national and state program accreditations, are included in the tool. The goal of the tool is to provide information about various program standards and accreditations to support increased collaboration among early childhood programs.

Beginning Education: Early Childcare at Home (BEECH)

<http://earlylearningtexas.org/beechn.aspx>

<http://www.childrenslearninginstitute.org/our-research/project-overview/BEECH/>

<http://www.childrenslearninginstitute.org/our-research/project-overview/BEECH/research.html>

Texas Department of Agriculture (TDA)

TDA offered all contracting entities in the Child and Adult Care Food Program (CACFP) the complimentary training, “Feeding Infants: The First Year of Life.” The training covers benefits, handling and storage of breast milk. The CACFP Infant Meal Pattern allows breast milk as a creditable food item toward a reimbursable meal.

The USDA CACFP Meal Pattern final rule was released April 2016. The changes to the infant meal pattern support breastfeeding and the consumption of vegetables and fruits without added sugars. These changes are based on the scientific recommendations from the National Academy of Medicine, the American Academy of Pediatrics and stakeholder input. CACFP centers and day care homes must comply with the new meal patterns by October 2017. The new regulations and best practices support breastfeeding and breastmilk by doing the following:

- Allow and encourage parents/guardians to exclusively feed infants breastmilk, iron fortified infant formula or a combination of both and delay the introduction of solid complementary foods until around six months of age.
- Allow breastfeeding mothers to breastfeed onsite and providers to claim reimbursement for meals.
- Best Practice: Create a space for mothers to directly breastfeed their infants in a quiet, private, sanitary and comfortable location within the site.

Texas A&M AgriLife Extension

“Infant and Toddler Care Training for Parents and Families” features eight free courses covering a variety of infant and toddler care topics on the Texas A&M AgriLife Extension Service website. These include:

- “Infant Nutrition — Baby’s First Year,” developed by Texas A&M AgriLife Extension Service is available to county extension agents for their use with new and expectant parents. The session plan emphasizes the value and benefits of breastfeeding.
- Breastfeeding-related online educational courses for caregivers and parents include “Supporting Breast Feeding in Child Care Settings”.
- AgriLife made “Growing Healthy Little Ones” videos available online at: www.youtube.com/texasfeedingminds

Texas Pediatric Society (TPS) Committee on Obesity Survey

The Texas Pediatric Society (TPS), the Texas chapter of the American Academy of Pediatrics (AAP), supports the AAP’s policy statement “Breastfeeding and the Use of Human Milk”¹. The TPS supports the AAP’s recommendation of exclusive breastfeeding for the first 6 months, followed by continued breastfeeding as complementary foods are introduced, with continuation of breastfeeding for 1 year or longer as mutually desired by mother and infant. The AAP policy statement outlines the importance of breastfeeding to the physical and emotional health of both the mother and baby. The numerous health benefits of breastfeeding for the baby set a solid foundation for good health early in life.

Some of the many benefits for the baby as outlined in the policy statement include (but are not limited to):

- 72% reduced risk of hospitalization for lower respiratory tract infection (for example pneumonia) in the first year if exclusively breastfed for greater than 4 months.
- 23% reduction in incidence of otitis ear infections with any amount of breastfeeding in infancy
- 64% reduction in gastrointestinal tract infections (like stomach viruses and diarrhea) with effects lasting up to 2 months after cessation of breastfeeding with any amount of breastfeeding in infancy
- 15-30% reduction in adolescent and adult obesity with any amount of breastfeeding in infancy
- Breastfeeding is associated with a 36% reduced risk of SIDS (Sudden Infant Death Syndrome).

The TPS supports the AAP’s recommendation for hospital routines to encourage and support the initiation and sustaining of exclusive breastfeeding. The TPS encourages hospitals in Texas to achieve the Baby Friendly Hospital designation.

1. <http://pediatrics.aappublications.org/content/pediatrics/129/3/e827.full.pdf>

The TPS has surveyed the membership of the committee on Childhood Obesity every few years to gather information about Pediatric breastfeeding practices across the state of Texas. The results show that pediatricians in Texas recognize the importance of initiating breastfeeding shortly after birth and providing support for breastfeeding when needed. Also, pediatricians

recognize and appreciate the increase in the number of Baby Friendly Hospitals in the state, which has helped support initiation of breastfeeding.

When rounding on newborns in the hospital or during the hospital discharge check up in the office:

Is Breastfeeding Recommended/Encouraged?

| | Response % (2011) | Response % (2014) | Response % (2016) |
|---------------|-------------------|-------------------|-------------------|
| Always | 84% | 79% | 90% |
| Sometimes | 6% | 10% | 10% |
| Never | | | |
| I don't know* | 11% | 10% | |

Are Barriers to Breastfeeding Discussed?

| | Response % (2011) | Response % (2014) | Response % (2016) |
|---------------|-------------------|-------------------|-------------------|
| Always | 33% | 48% | 20% |
| Sometimes | 45% | 41% | 80% |
| Never | 6% | 4% | |
| I don't know* | 17% | 7% | |

*These respondents do not see newborns in their practice

How many hospitals in your area (with a newborn nursery) are adopting breastfeeding friendly practices?

| | Response % (2011) | Response % (2014) | Response % (2016) |
|-----------------------|-------------------|-------------------|-------------------|
| 100% of the hospitals | 11% | 21% | 33% |
| 75% of the hospitals | 17% | 35% | 22% |
| 50% of the hospitals | 33% | 24% | 11% |
| 25% of the hospitals | | 3% | |
| None of the hospitals | 6% | 3% | |
| Other | 33%* | 14% | 33%* |

*Not sure.

Action B: Increase Consumption of Fruits and Vegetables

Increase consumption of fruits and vegetables by promoting educational, recreational and hands-on opportunities that encourage healthy eating for children under the age of six and raise nutrition standards in licensed day care facilities for children under the age of six by promoting recommendations and policies to improve the child care minimum standards guidelines.

Recommendations in 2014 Legislative Report

- Align nutrition standards and meal patterns between Child and Adult Care Program (CACFP) administered by the Texas Department of Agriculture (TDA) and Texas Department of Family and Protective Services (DFPS) Child Care Licensing (CCL) for consistency and improved nutrient quality across all child care facilities preparing foods for infants and children under the age of six.
- Provide child care facilities, children and parents with information on “Farm to Child Care” (F2CC) which is similar to the established Farm to School model that helps to establish connections with local farmers, purchasing local fruits and vegetables, integrating more fresh fruits and vegetables into meals and snack, consumption of fresh produce, children participating in the food system and growing child care gardens.

Background Information and Research

Increasing fruit and vegetable consumption provides children a diet based on a variety of nutrient-dense foods that provide substantial amounts of essential nutrients and appropriate calories to meet the child’s needs. For children, the availability of a variety of clean, safe, nourishing foods is essential during a period of rapid growth and development. Beyond providing these foods, family homes and center-based out-of-home early childhood care facilities have the opportunity to guide and support children’s sound eating habits and food learning experiences.^{xi}

The *2015 – 2020 Dietary Guidelines for Americans* (DGA) recommendations are intended for people two years of age and older. DGA recommends two cups per day for fruits and 2½ cups per day for vegetables for adults. Vegetables are adjusted to include dark green vegetables, red and orange vegetables, legumes, starchy vegetables and other vegetables with weekly recommendations designed to maintain a dietary balanced vegetable consumption. The *MyPlate* eating plan from the U.S. Department of Agriculture’s Center for Nutrition Policy and Promotion outlines serving amounts according to age groups and recommends children aged two to three years consume at least one cup of fruits and one cup of vegetables daily and all children aged four to eight years should aim for 1½ cups fruits and 1½ cups vegetables daily.

Nationally, WIC improves the health of low-income pregnant women, new mothers and children by providing nutritional education, nutritious foods and assistance in accessing health care. WIC food packages were updated in 2009 to encourage exclusive breastfeeding, to increase fiber, and to reduce saturated fat and cholesterol. These food packages include a cash value for fruits and vegetables for children and adults and jarred fruits and vegetables for infants to increase fiber, reduce saturated fat and cholesterol. The food packages also delay introduction of infant cereal and eliminate infant juice.

CACFP improves the nutrition and health of the nation’s most vulnerable individuals — more than 3 million infants and children primarily from low-income households. The meals and snacks provided by the program can account for the majority of food consumed by many of these individuals, so the quality of the foods provided has the potential to affect their diets substantially.^{xii}

The CDC released its first set of comprehensive recommended strategies and measures for obesity prevention and one of the strategies includes improving the mechanisms for purchasing foods from farms.^{xiii} While evidence is limited regarding a direct link to improved diet, experts suggest that this strategy could reduce costs and increase access to fresh fruits and vegetables in areas without adequate markets, and improve the appeal and taste of produce by harvesting produce at peak ripeness. An additional CDC strategy includes providing incentives for the production, distribution and procurement of foods from local farms.

Experts suggest this strategy could impact the amount of produce that is grown and available throughout the country, since the U.S. currently does not produce enough fruits and vegetables to meet the expected demand if all residents ate the amounts recommended in the *2015-2020 DGA*. USDA launched the “Know Your Farmer, Know Your Food” campaign to start a national dialogue on the issue.

Actions Taken in Furtherance of the Six-Year Plan

The Healthy Hunger-Free Kids Act (HHFKA) of 2010 establishes Administration for Children and Families, Health and Human Service (HHS) to work with state licensing representatives to have consistent nutrition standards that align with CACFP. DFPS and TDA along with recommendations from HHS will work together to help accomplish this goal.

Texas Workforce Commission (TWC)

The Texas Rising Star program is “a voluntary, quality-based child care rating system of child care providers participating in the Texas Workforce Commission’s subsidized child care program.” TRS Certification is available to Licensed Center and Licensed and Registered Child Care Home providers who meet the certification criteria. The TRS Provider certification system offers three levels of certification (Two-Star, Three-Star, and Four-Star) to encourage providers to attain progressively higher certification requirements leading to a Four-Star level.

In 2013, TWC convened a workgroup dedicated to the revision of TRS. The workgroup was established by House Bill 376 (HB 376), enacted by the 83rd Texas Legislature. HB 376 created tiered reimbursements for child care providers who are certified TRS and serve subsidized children, providing higher reimbursement rates for providers who meet higher levels of distinction within TRS. The purpose of the TRS Workgroup was to recommend revisions to the TRS Program.

HB 376 required that the workgroup submit recommendations proposing changes to TRS by May 1, 2014, and rules that incorporate the proposed changes by September 1, 2014. The proposed changes to TRS were approved by TWC on January 27, 2015.

Initial certifications were conducted by September 1, 2015; full implementation of the TRS Guidelines occurred March 2016.

Summary of TRS certification criteria

The Texas Rising Star Guidelines address the following:

Category 1: Director and Staff Qualifications and Training

- Director Qualifications and Training
- Caregiver Qualifications, Orientation and Training

Category 2: Caregiver-Child Interactions

- Group size/Ratios
- Interactions
 - Warm and Responsive Style
 - Language Facilitation and Support
 - Play-based Interactions and Guidance
 - Support for Children’s Regulation

Category 3: Curriculum

- Lesson Plans and Curriculum
 - Planning for Special Needs and Respecting Diversity
 - Instructional Formats and Approaches to Learning

Category 4: Nutrition and Indoor/Outdoor Activities

- Nutrition
- Indoor Learning Environments
- Outdoor Learning Environments

Category 5: Parent Involvement and Education

- Parent Education
- Parent Involvement

| FY 2015 TRS Providers (October 1, 2014 through September 30, 2015) | | |
|---|----------------|--------------|
| Star Level | Centers | Homes |
| 2 | 346 | 20 |
| 3 | 203 | 10 |
| 4 | 289 | 33 |

Source: FFY2015 Quality Performance Report

For additional information on the Texas Rising Star Program, please visit:

<https://texasrisingstar.org/>

Department of State Health Services (DSHS)

Texas Rising Star Guideline Revision

In 2013-2014, DSHS Obesity Prevention Program (OPP) contributed to the revision of the Texas Rising Star (TRS) Guidelines. OPP participated in TRS workgroup discussions, provided public comment, and participated on the Nutrition, Curriculum, and Indoor/Outdoor Environment subcommittee. OPP also informed stakeholders of the opportunity to provide public comment on

the Guidelines. Guidelines most related to nutrition, physical activity, and breastfeeding are found in the following categories:

- Category 3: Curriculum;
- Category 4: Nutrition and Indoor/Outdoor Activities; and
- Category 5: Parent Involvement and Education.

Notable changes include introducing foodservice guidelines into menu planning and incorporating natural elements into the outdoor learning environment to motivate children to be physically active.

Healthy Community Food Systems Module

The OPP Program collaborated with Sustainable Food Center (SFC) to develop and launch the Healthy Community Food Systems module, an online professional continuing educational video module, in July 2015. The module is hosted by the National CHW Training Center, part of the Texas A&M Health Science Center School of Public Health, Center for Community Health Development. The aim of this project is to educate consumers on the concept of sustainable agriculture and to increase awareness of the food system's role in the prevention of obesity. The module highlights changes needed in communities to increase access and availability of fruits and vegetables and to support the local food system. A link to the module can be found at the Sustainable Food Center landing page at <http://sustainablefoodcenter.org/healthy-community-food-systems-module>.

A total of 33 individuals have completed the module and passed the post-test; an additional 36 individuals viewed the module but did not complete the post-test. A total of 203 unique users have registered for the module, and the SFC landing page has had 398 unique page views since the module launched.

Texas Department of Agriculture

TDA's Farm to Child Care (F2CC) initiative continues to provide connections between local farmers, local produce and children in early child care settings. These types of initiative partnerships have the potential to create a sustainable system change that enables CACFP sites to purchase directly from Texas farmers. The F2CC strategy could shift children toward fresh produce. Preschool children learn the nutritional value of fruits and veggies and how it helps little bodies grow strong and healthy and develop properly. TDA offers and encourages providers and sponsors to:

- Provide staff training
- Organize field trips to local farms and urban gardens
- Purchase materials to grow a vegetable garden
- Provide fruits and vegetables for tasting parties
- Stage cooking demonstrations
- Provide information for parents on local food sources

TDA is working to increase awareness of F2CC through the creation of a Farm to CACFP web pages on the SquareMeals.org, increased training at CACFP conferences and facilitated sharing between childcare centers about implementing F2CC. TDA continues to develop and distribute informational brochures on F2CC as well as information on procurement guidelines and training specific to buying local. TDA has also recently created a database of Farm to Childcare activities in the state. The database provides a deeper understanding of program success and barriers to inform the agency and the CACFP community. A map of activities is posted on SquareMeals.org.

TDA has also launched the Healthier CACFP Recognition Award (HCACFPRA). The HCACFPRA is a recognition system that supports the wellness efforts of child care centers participating in CACFP. Child care centers are recognized for taking steps to improve the nutritional quality of meals and snacks, increase physical activity and nutrition education. State funded grant awards are made to grantees to assist in implementing long-term changes to their childcare centers. Since the initial awards made in 2015, many centers have implemented F2CC with great success.

TDA not only recognizes the importance of serving high quality fresh foods, but also encouraging children to try it. This year TDA will host music based nutrition performances at childcare centers to encourage children to eat healthy. TDA also encourages CACFP centers to participate in family style food service. This engages children with their food and allows the adults in the classroom to model healthy food consumption as they serve and eat the same healthy foods as the children.

WIC Food Package

WIC encourages consumption of fruits and vegetables by promoting educational, recreational and hands-on opportunities, such as web-based lessons, nutrition fairs and cooking classes that encourage healthy eating. The WIC program further encourages the consumption of fruits and vegetables by children through the recent distribution of two physical activity/healthy eating DVDs, *The Adventures of Zobey Barnyard Dance Party* and *The Adventures of Zobey Jungle Jive*. WIC redemption rates for vegetables and fruits consistently range:

- between 76-81% for redemption of cash value benefits for fruits and vegetables for women and children, and
- between 61-66% for redemption of jarred fruits and vegetables for infants.

Local WIC agencies may apply for Obesity Prevention Mini Grants from the state agency each fiscal year to help fund obesity prevention activities in their communities. Objectives of the grants include promoting and supporting healthy lifestyles for WIC families and WIC staff. This is intended to, encourage the family to move toward healthier eating and regular physical activity, supporting parents in making healthy food choices, and helping parents develop skills to become good role models for their children. Examples of projects include cooking classes focused on foods in the WIC package such as fruits, vegetables and whole grains; gardening activities, including community gardens and simple container gardening; grocery store tours; nutrition carnivals; and increasing physical activity.

Texas Pediatric Society (TPS) Committee on Obesity Survey

The AAP encourages the establishment of healthy eating habits early in life. The TPS recognizes that healthy eating habits need to start at home and be maintained at child care facilities, where many Texas children receive most of their meals. The TPS supports the AAP recommendation that children should consume at least 5 servings of fruits and vegetables a day. The TPS also supports the AAP's recommendations on fruit juice consumption for children. The AAP recommends no fruit juice consumption for infants under 6 months of age since it provides no nutritional value. For children between 1 and 6 years of age, fruit juice consumption should be limited to 4 to 6 ounces per day. Whole fruit should be offered in place of fruit juice where possible, as whole fruit provides fiber and other nutrients that are lacking in fruit juice. The TPS agrees with the AAP's statement that there is no need for sugar sweetened beverages in the diet of young children.

The AAP encourages pediatricians to use the body mass index (BMI) percentile in children as a measure of overweight/obesity in children ages 2 and older. A child's BMI percentile is assessed using the child's weight and height then plotted on the gender-appropriate graph based on age. A child is considered overweight if their BMI is ≥ 85 -95th% and obese if ≥ 95 th%. The AAP recommends BMI assessment yearly starting at age 2. The AAP has also endorsed the CDC/WHO infant growth charts, which allow healthcare providers to assess BMI percentile from birth through 2 years of age. Assessment of BMI percentile during infancy can provide reassurance to breastfeeding mothers that their children are growing well, and for other infants, such as those who might be consuming too much formula; it can be an early signal raising concern about growth rates that might be too rapid.

The AAP encourages pediatricians to educate parents on the 5-2-1-0 model that reaches children and families where they live, learn, work and play with a consistent message that promotes four healthy behaviors. These behaviors are evidence-based and recommended by the medical community to promote good health:

- 5 – Servings of vegetables and fruits daily
- 2 – Hours or less of non-academic TV/video game/computer/phone screen time per day
- 1 – Hour or more of physical activity
- 0 – Sugary drinks

Quality sleep is another aspect of health that pediatricians promote and can play a role in helping children achieve and maintain a healthy weight.

The TPS has surveyed the membership of the committee on Childhood Obesity every few years to gather information about what Texas pediatricians are doing regarding measuring BMI and counseling families about lifestyle modification such as the 5-2-1-0 model. The results show that pediatricians in Texas are assessing BMI and do feel that counseling families on lifestyle modification is important.

How often is BMI calculated and plotted at well-child visits for ages 2 and above?

| | Response % (2011) | Response % (2014) | Response % (2016) |
|--|----------------------|----------------------|----------------------|
| | | | |

| | | | |
|------------------|-----|-----|-----|
| 100% of the time | 89% | 86% | 80% |
| 75% of the time | 11% | 10% | 20% |
| Other | | 4% | |

Once parents are made aware of their child’s BMI percentile, are they counseled on lifestyle modifications such as 5-2-1-0?

| | Response % (2011) | Response % (2014) | Response % (2016) |
|------------------|-------------------|-------------------|-------------------|
| 100% of the time | 50% | 59% | 50% |
| 75% of the time | 33% | 34% | 30% |
| 50% of the time | 11% | | 10% |
| Other | 6%* | 7% | 10%** |

*No standard counseling message is delivered among the practice – varies by practitioner in their group; **Not sure

When counseling parents on lifestyle modifications, how often is a piece of paper/handout/resource given?

| | Response % (2011) | Response % (2014) | Response % (2016) |
|------------------|-------------------|-------------------|-------------------|
| 100% of the time | 28% | 17% | 40% |
| 75% of the time | 39% | 38% | 20% |
| 50% of the time | 17% | 21% | 20% |
| 25% of the time | 11% | 17% | 20% |
| Never | | 7% | 0% |
| Other | 6%* | | 0% |

Texas A&M AgriLife Extension Service

Texas A&M AgriLife Extension Service offers *Healthy Food Healthy Families* curriculum from the Expanded Food and Nutrition Education Program (EFNEP) in addition to self-paced, online courses that explained the importance of physical activity and nutrition for pre-school children were made available. Courses were offered with titles such as *Healthy Habits: Encouraging Healthy Eating and Physical Activity in Young Children*.

Texas A&M AgriLife Extension Service

Child Nutrition and Activity Related On-line Course Completions: 2012 - 2015

| Title | 2012 Total Course Completions | 2013 Total Course Completions | 2014 Total Course Completions | 2015 Total Course Completions |
|---|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Family Dinner: It’s more than meat & potatoes | 263 | 315 | 494 | 300 |

| | | | | |
|--|--------|--------|--------|--------|
| Feeding Young Children with Special Food Needs in Child Care Settings | 39 | 68 | 456 | 270 |
| Healthy Eaters: Infant and toddler nutrition in child care settings | 10,487 | 13,468 | 14,974 | 13,620 |
| Healthy Habits: Encouraging healthy eating and physical activity in young children | 518 | 462 | 516 | 569 |
| Mini Talks about Mini Folks: Frequently asked questions on child nutrition | 1,248 | 623 | 850 | 783 |
| Snacks and the preschool child: Why, what & how | 146 | 405 | 401 | 329 |
| Supporting breastfeeding in the child care setting | 220 | 159 | 158 | 76 |
| Ten Behaviors that promote a healthy weight in preschool children | 39 | 295 | 812 | 465 |
| Why play? Understanding the role of play in early childhood | 99 | 161 | 188 | 109 |
| An introduction to family nutrition #2: Baby's first year | NA | 135 | 146 | 131 |
| An introduction to family nutrition #3: Toddlers, preschoolers and children | NA | 146 | 136 | 145 |
| Caregivers talking to parents about child nutrition and eating behaviors | NA | NA | 55 | 122 |
| Old Wives Tales: Myths about feeding children | NA | NA | NA | 64 |
| Age-appropriate nutrition feeding and | NA | NA | NA | 5,328 |

| | | | | |
|--|---------------|---------------|---------------|---------------|
| support for breastfeeding | | | | |
| Age-appropriate physical activity for children | NA | NA | NA | 6,757 |
| | | | | |
| TOTAL | 13,059 | 16,237 | 19,186 | 29,068 |

Food Brought from Home

This is treated as a separate component of Action B because it applies to increasing fruit and vegetable consumption by developing relationships between child care providers and parents instead of changing behaviors in the child care environment.

Background Information and Research

Changes in Texas state regulations of child care food service in 2003 (effective date Sept. 1, 2003) resulted in more centers halting meal and snack preparation and requiring parents to provide food from home for their children. The minimum child nutrition standards for child care centers changed from a required nutrition standard similar to the one set forth by the American Dietetic Association recommendations to an option that allows facilities to request that parents sign an affidavit that releases the center from the responsibility of meeting the child’s nutritional needs and providing safe and proper food storage.^{xiv}

Lunch is in the Bag

Drs. Briley and Hoelscher worked on the pilot study, *Lunch is in the Bag*, evaluated effects on behavioral constructs and their predictive relationship to lunch-packing behaviors of parents of young children in child care facilities.

The study examined ways parents could be influenced to include fruits, vegetables and whole grains in children’s sack lunches. The study included researching *Lunch is in the Bag*, a five-week program for parents and children who use child care centers requiring lunches sent from home. The program includes classes created to provide education for the children and prompt parents to include healthy foods in their children’s lunches. The program also includes activity stations outside the class once a week when parents pick up their children.

Healthy home lunch practices are now required for all providers in the Texas Rising Star program. Outcomes of the *Lunch is in the Bag* study informed the refrigeration component.

Home Lunch Practices

- a) Include in written policies procedures to ensure the safety of food brought from home, including refrigeration or other means to maintain appropriate temperatures.
- b) Programs have policies in place outlining strategies to educate children and their parents on nutrition.
- c) Programs provide parents with information about foods that may cause allergic reactions.
- d) Providers provide sample menus of healthful lunches for parents whose children bring food from home. Parents are encouraged to provide meals with adequate nutritional value.

Current outcomes and progression of *Lunch is in the Bag* initiative can be found in Appendix A.

Texas Childhood Obesity Research Demonstration Project

The Michael & Susan Dell Center for Healthy Living, part of The University of Texas Health Science Center at Houston (UT Health), and the USDA/ARS (Agriculture Research Services) Children's Nutrition Research Center at Baylor College of Medicine have been awarded a \$6.28 million grant from CDC. The Texas Childhood Obesity Research Demonstration (CORD) is a CDC funded project designed to evaluate community-based obesity prevention and treatment programs in Austin and Houston. The project takes place in Austin and Houston with collaborators from MEND (Mind, Exercise, Nutrition, Do it), Texas Children's Hospital, the Texas Center for the Prevention and Treatment of Childhood Obesity at Dell Children's Medical Center, Texas Department of State Health Services, Duke University, University of Nebraska Medical Center, the YMCA, the Sustainable Foods Center and Coordinated Approach to Child Health (CATCH). CORD connects the dots between families, pediatricians, schools and local youth organizations to support children's healthy eating and active living. If successful, CORD will become a national model for medical and community practice.

The Texas CORD project includes a primary prevention trial, a total of 51 Head Starts and school (Head Starts embedded in a school) centers. Of those, 34 are receiving the intervention now, and the rest will receive a delayed intervention in 2014. The primary prevention intervention consists of our CATCH Early Childhood program. Thirty of the Head Start Centers are in Houston and 21 are in Austin. For the secondary prevention part of the project, which includes 288 2-5 year olds, half will receive a year-long intervention with Texas CORD that includes the MEND 2 through 5 programs for 3 months, followed by monthly family meetings with cooking lessons and role model stories. The other half will receive Next Steps, a self-guided obesity prevention program promoted by the American Academy of Pediatrics (AAP). The intervention is now complete and active evaluation is underway.

<https://sph.uth.edu/research/centers/dell/projects>.

Seton Healthcare Family and the Texas Center for the Prevention and Treatment of Childhood Obesity have been awarded 1115 Medicaid Waiver/Delivery System Reform Incentive Payment funds to dramatically expand the childhood obesity center and obesity programs at Dell Children's Medical Center. One of the programs that is being developed and implemented through this grant is a young child intervention called Healthy PIECES (Parenting Intervention for Early Childhood-Education and Skill-Building) that provides Parent-Child Interaction Therapy (parent training and counseling) so that parents can best support their children in making healthy changes. David Heckler, PhD is the lead child psychologist for this intervention. Knowledge and best practices developed through this project will be shared with other providers across Texas.

The Texas Pediatric Society plans to continue to present the Be Our Voice training workshop annually in Austin. At this statewide training, health care professionals are trained in how to develop and implement projects that seek to improve the health of the communities they serve.

Each year, teams have focused on a variety of topics, including working with Head Start programs and promoting breastfeeding.

The AAP established the Institute for a Healthy Childhood Weight and the AAP Section on Obesity www.aap.org/obesity. Dr. Stephen Pont, a stakeholder on the Council, currently serves as the inaugural chair of the AAP Section on Obesity. Additional resources from the AAP include Change Talk, an interactive training simulation to help pediatricians and other health professionals learn motivational interviewing techniques to counsel families on childhood obesity, and Healthy Active Living for Families, which developed and tested a series of positive, family-focused messages specific to obesity prevention and care for the following developmental stages: infancy, toddlerhood, and early childhood. Texas families participated in focus groups and contributed to the development of this national tool.

Current outcomes and progression of *CORD* initiative can be found in Appendix B.

Action C: Raise Nutrition Standards

Raise nutrition standards in licensed child care facilities for children under the age of six by promoting recommendations and policies to improve the child care minimum standards guidelines.

Recommendation in 2014 Legislative Report

- Align nutrition standards and meal patterns between CACFP and Texas Department of Family and Protective Services (DFPS) Child Care Licensing (CCL) for consistency and improved nutrient quality across all child care facilities preparing foods for infants and children under the age of six.

Background Information and Research

Meeting a child's needs for growth and activity is important. Today, parents and caregivers often share the responsibility for facilitating these needs through nutrition and exercise. Providing a stable and consistent diet of whole, minimally processed, nutritious foods becomes more challenging when children divide their time between home and outside child care. Providing children with a consistent nutrition message that is balanced requires coordination between parents and caregivers. Just as parents and caregivers have different influences at different times; children change from year to year. During the second and third years of life, the child grows much less rapidly than during the first year of life. Whether they're experiencing periods of rapid or slower growth, children must continue to eat nutritious foods.

When children are thirsty between meals and snacks, water is the best choice. Encouraging children to learn to drink water in place of fruit drinks, soda, fruit nectars or other sweetened drinks builds a beneficial habit. Drinking water during the day can reduce the extra caloric intake that is associated with being overweight and obese.^{xv} Drinking water is good for a child's hydration and reduces acid in the mouth that contributes to early childhood caries, or tooth decay.^{xvi} Water needs vary among young children and increase when exercising or during dry days when dehydration is a risk.^{xvii}

Clean, sanitary, drinking water should be readily available in both indoor and outdoor areas throughout the day. Water should not be a substitute for milk at meals or snacks where milk is a required food component unless it is recommended by the child's primary care provider. The AAP recommends that children aged two and older should be served skim or 1 percent milk.^{xviii}

Actions Taken in Furtherance of the Six-Year Plan

In December 2010, DFPS revised the nutrition standards for child care centers in Title 40 of the Texas Administrative Code, Chapter 746, *Minimum Standards for Child Care Centers*. The revisions included the following requirements:

- Caregivers must ensure a supply of drinking water is always available to each child and is served at every snack, at mealtime and after active play. It must be made available in a safe and sanitary manner;
- Caregivers must not serve beverages with added sugars, such as carbonated beverages, fruit punch or sweetened milk except for a special occasion such as a holiday or birthday celebration;
- Caregivers must serve only 100 percent fruit or vegetable juice;
- Fruit juice must be served only to children ages 12 months and older; and
- Caregivers only can serve up to four ounces of fruit juice for children ages 12 months through five years of age and six ounces for children ages six and older per day when using towards daily food needs.

For child care centers, DFPS revised minimum standards for servings of fruits and vegetables, activity requirements and added limits on screen time. These standards outline the required number of meals and snacks a child needs depending on the amount of time they spend at the center. Accompanying charts make it easy to determine the various food groups that should be represented and the number of servings and serving sizes required for each meal or snack. Different charts are available for different ages.

Texas Department of Agriculture (TDA)

Child and Adult Care Food Program (CACFP) Meal Patterns

USDA recently revised the CACFP meal patterns to ensure children and adults have access to healthy, balanced meals throughout the day. Under the new child meal patterns, meals served will include a greater variety of vegetables and fruit, more whole grains and less added sugar and saturated fat. The changes made to the meal patterns are based on the Dietary Guidelines for Americans, scientific recommendations for the National Academy of Medicine, and stakeholder input. CACFP centers and day care homes must comply with the new meal patterns by October 1, 2017. Overall the meal patterns stipulate the following:

- A greater variety of vegetables and fruits
- More whole grains
- More protein options
- Age appropriate meals
- Less added sugar

- Unflavored whole milk for 1 year olds
- Unflavored low-fat or fat-free milk must be served to children 2 through 5
- Unflavored low-fat, unflavored fat-free, or flavored fat-free milk must be served to children 6 years old and older

TDA provides nutrition training to CACFP contracting entities in three areas:

- Menu planning
- Planning nutritious snacks
- Feeding infants

Healthier CACFP Recognition Award (HCACFPRA)

The HCACFPRA is a recognition system that supports the wellness efforts of child care centers participating in CACFP. Child care centers are recognized for taking steps to improve the nutritional quality of meals and snacks, increase physical activity and nutrition education.

CACFP centers must apply for an E3E (Establishing the 3 E's — Education, Exercise, and Eating Right) grant through TDA. When the E3E's request for application (RFA) is released, CACFP centers complete the RFA based on the level (bronze, silver, or gold) and category(s) (menus, physical activity, nutrition education and the child care environment) to apply.

Applicants must choose the Menus category plus one or more of the remaining categories.

Criteria are developed for each level. Once the criterion is reviewed the applicant can best decide which category and award level to select based on their organization's level of readiness. E3E grants are competitive grants that are reviewed and scored by a panel of experts. Those awarded a grant have one year to complete the criteria for the award level selected.

In FY 2016 13 grants were awarded that included 38 sites. A total of \$184,336.00 was awarded.

<http://www.squaremeals.org/FandNResources/HealthierCACFP.aspx>

TDA also offers the state funded "Establishing the 3E's" program that incentivizes the creation of new nutrition education programs in any childcare institution or community organization. This program is geared toward 3-5 year old children and is a competitive grant. This program allows not only children, but their parents, to learn that proper nutrition education at an early age is pertinent to developing healthy eating and exercising habits.

Texas A&M AgriLife Extension Service

The Texas A&M AgriLife Extension Service continues online and face-to-face trainings to educate and encourage fruit and vegetable consumption. A revised lesson plan promoting the consumption of fruits and vegetables for delivery by Texas A&M AgriLife Extension agents to clients who may have families with preschool children, a set of vegetable and fruit fact sheets, and an online series. An introduction to family nutrition is posted at Extension Online. The series serves as professional development for new agents. However, it can be viewed by anyone at no cost.

Texas A&M AgriLife Extension Service posted videos online^{xix} for the Texas Feeding Minds Project. This made the project results available online to all target audiences including parents, families, caretakers and communities. By offering parents a curriculum called *Healthy Food Healthy Families*; Below EFNEP reached a total of parents of children under the age of 5:

| Year | Total 5 and under |
|----------------------|-------------------|
| 2012 – 2013 | 15,050 |
| 2013 – 2014 | 17,431 |
| 2014 – 2015 | 15,637 |
| 2016 – June 30, 2016 | 12,255 |
| Grand total: | 60,373 |

The results of “Growing Healthy Little Ones” (Healthy Lifestyle Childcare SNAPEd Project in Brazos County) were made available to 105 parents and families of seven child care centers involved in the TDA-funded Nutrition Education Grant Program. A summary report was provided to the three centers in Brazos County and four centers in Travis County as well as a DVD illustrating all project components including gardening, vegetable tasting and recipes for families, reading about nutrition and physical activity, and increasing physical activity at the center.

Action B and C: Increase Physical Activity for Pre-School Children in Child Care

Increase minutes of structured and unstructured physical activity in licensed day care facilities for children (under the age of 6) by promoting recommendations and policies to improve the child care minimum standards guidelines. Increase moderate to vigorous physical activity and minutes of structured and unstructured physical activity in licensed day care facilities for infants and children under the age of 6 by promoting recommendations and policies to improve the child care minimum standard guidelines.

Recommendation in 2014 Legislative Report

- Continue efforts with DSHS Obesity Prevention Program (OPP) and DFPS CCL to improve minimum physical activity standards in child care facilities for infants and children under the age of 6.
- Determine a system for assessing and monitoring physical activity trends using “The Child Care Centers/Homes Physical Activity Self-Assessment Survey” in child care settings for Infants and children under 6 years of age to establish baseline data for: number of minutes of structured and unstructured physical activity, frequency and duration of screen time, and barriers to physical activity.

Background Information and Research

Children in the United States are exposed to media use from their earliest years. A 2003 study from the Kaiser Family Foundation reported that children aged six years and younger spend an average of two hours per day with screen media, mostly watching television and videos.^{xx} The AAP recommends that television time should be limited to no more than one to two hours of quality programming per day for children over two years old.^{xxi} The 2010 DGA stated that it is “important during leisure time to limit sedentary behaviors, such as television watching and video viewing, and replace them with activities requiring more movement.”^{xxii} Research has found that television exposure is a risk factor for overweight in preschoolers.^{xxiii}

Physical activity and movement are essential to the development, learning and growth of young children. During the first six years of life, infants, toddlers, and preschoolers are learning fundamental gross motor skills, and need ample opportunities to practice these skills. Recent

evidence suggests that children may be more attentive and learn better after periods of activity and movement.^{xxiv} Notably, physical activity is also a crucial part of maintaining a healthy weight and preventing obesity. Physical activity habits are established early in life and develop over time.^{xxv} Therefore, the preschool years are a key time in which to instill healthy physical activity habits that will last a lifetime, primarily through active play.

Although physical activity is essential to young children's growth and learning, there are potential barriers to daily opportunities for active play, including concerns about children's safety, time, curricular constraints and inadequate knowledge or training among caregivers about how to integrate these opportunities into the curriculum.

Screen time is another barrier to children getting enough physical activity. A 2003 study showed children aged six and under spend an average of two hours per day watching a TV screen or other media device.^{xxvi} The maximum amount of time children older than two should be watching videos is actually one to two hours and it should be quality programming.^{xxvii} All this screen time can lead to overweight in pre-school children.^{xxviii}

Experts disagree about the appropriate amount of physical activity for toddlers and preschoolers, what proportion of children's physical activity should be structured, and to what extent structured activities are effective in producing children's physical activity. Researchers do agree that toddlers and preschoolers generally accumulate vigorous physical activity over the course of the day in very short bursts of 15 to 30 seconds.^{xxix}

Daily physical activity is an important part of preventing excessive weight gain and childhood obesity. Some evidence also suggests that children may be able to learn better during or immediately after bursts of physical activity, due to improved attention and focus.^{xxx}

Numerous reports suggest that children are not meeting daily recommendations for physical activity, and that children spend 70 percent to 87 percent of their time in early care and education being sedentary, i.e., sitting or lying down.^{xxxi} Excluding nap time, children are sedentary 83 percent of the time. Children may only spend about 2 percent to 3 percent of time being moderately or vigorously active.^{xxxii}

Very young children are entirely dependent on their caregivers and teachers for opportunities to be active.^{xxxiii} Especially for children in full-time care and for children who live in unsafe neighborhoods, the early care and education facility may provide the child's only daily opportunity for active play. Evidence suggests that physical activity habits learned early in life may track into adolescence and adulthood supporting the importance for children to learn lifelong healthy physical activity habits while in the early care and education program.^{xxxiv}

The National Association of the Education of the Young Child (NAEYC) requires accredited centers to follow the guidelines below:

- Children 1 year and older in full-day care should be physically active an hour a day
- Children 3 years and older should have at least 30 minutes structured movement activity
- Children should not remain sedentary for more than an hour at a time, except for rest time

National Association for Sport and Physical Education (NASPE) Physical Activity Guidelines for birth to age five^{xxxv}

Guidelines for Infants:

- Guideline 1.** Infants should interact with caregivers in daily physical activities that are dedicated to exploring movement and the environment.
- Guideline 2.** Caregivers should place infants in settings that encourage and stimulate movement experiences and active play for short periods of time several times a day.
- Guideline 3.** Infants' physical activity should promote skill development in movement.
- Guideline 4.** Infants should be placed in an environment that meets or exceeds recommended safety standards for performing large-muscle activities.
- Guideline 5.** Those in charge of infants' well-being are responsible for understanding the importance of physical activity and should promote movement skills by providing opportunities for structured and unstructured physical activity.

Guidelines for Toddlers:

- Guideline 1.** Toddlers should engage in a total of at least 30 minutes of structured physical activity each day.
- Guideline 2.** Toddlers should engage in at least 60 minutes – and up to several hours – per day of unstructured physical activity and should not be sedentary for more than 60 minutes at a time, except when sleeping.
- Guideline 3.** Toddlers should be given ample opportunities to develop movement skills that will serve as the building blocks for future motor skillfulness and physical activity.
- Guideline 4.** Toddlers should have access to indoor and outdoor areas that meet or exceed recommended safety standards for performing large-muscle activities.
- Guideline 5.** Those in charge of toddlers' well-being are responsible for understanding the importance of physical activity and promoting movement skills by providing opportunities for structured and unstructured physical activity and movement experiences.

Guidelines for Preschoolers:

- Guideline 1.** Preschoolers should accumulate at least 60 minutes of structured physical activity each day.
- Guideline 2.** Preschoolers should engage in at least 60 minutes – and up to several hours – of unstructured physical activity each day, and should not be sedentary for more than 60 minutes at a time, except when sleeping.
- Guideline 3.** Preschoolers should be encouraged to develop competence in fundamental motor

skills that will serve as the building blocks for future motor skillfulness and physical activity.

Guideline 4. Preschoolers should have access to indoor and outdoor areas that meet or exceed recommended safety standards for performing large-muscle activities.

Guideline 5. Caregivers and parents in charge of preschoolers' health and well-being are responsible for understanding the importance of physical activity and for promoting movement skills by providing opportunities for structured and unstructured physical activity.

Actions Taken in Furtherance of Six-Year Plan

Texas Education Agency (TEA)

As part of the agency's outreach website, prekindergartenprepares.com, and toolkit, which was made available starting in the fall of 2011, TEA provides a parent information page titled "Healthy Child." The website, available in English and Spanish, includes links to best practices and resources under the categories of Immunization, Child Passenger Safety, Exercise, Healthy Meals, Fun and Crafts, WIC, CHIP and Children's Medicaid, and the National School Lunch Program. TEA used Title I state level funds to establish the site and conducted extensive stakeholder input and market research in its development. The website has been widely distributed by and among such interagency partners as the Texas Early Learning Council, Texans Care for Children, 20 regional education service centers, the Texas Head Start Collaboration Office and UT Health's Children's Learning Institute.

TEA's "Texas Prekindergarten Guidelines" have been established in recognition that the learning experiences of the preschool years provide a foundation that guides children academically, socially and emotionally. These experiences can influence the rest of a child's life. The guidelines include, as one of 10 domains, physical development. Although the guidelines are voluntary, they are widely used throughout the state by public prekindergarten programs and other early childhood education providers serving 3- and 4-year-old children. The guidelines include both gross motor development and fine motor development. Descriptions are provided of the skills and abilities of typically developing children by around 48 months of age, at the end of their prekindergarten year. In addition, examples are provided of what instructors should observe in child behaviors and further examples of instructional strategies to support the child's development.

In fall 2015, TEA established a 13-member review committee consisting of classroom teachers and administrators from early childhood programs in public schools, higher education faculty, and early learning experts from across the state to participate in the revision of the Texas Prekindergarten Guidelines. The revised prekindergarten guidelines are aligned with the Kindergarten Texas Essential Knowledge and Skills (TEKS), sequenced to follow child development and give teaching strategies for each of the guidelines. The new guidelines offer educators the information and support to prepare all children for success in Kindergarten. The Texas Education Agency has posted the new [Texas Prekindergarten Guidelines \(Revised 2015\)](#). The updated guidelines will be implemented beginning with the 2016-2017 school year.

As mentioned in the report previously, TEA, DFPS, and Head Start provided resources released in April 2013 by the Texas Early Learning Council (TELC). The TELC developed the “Infant and Toddler, and Three-Year-Old Early Learning Guidelines” which include a physical health and motor development domain. This domain includes health and well-being, gross motor skills, fine motor skills and physical health and motor special needs scenarios. This document was developed to be aligned with “Texas Prekindergarten Guidelines.”

Senate Bill 891, passed during the 81st Texas Legislative Session (2009), requires that students enrolled in full-day prekindergarten must participate in moderate to vigorous physical activity for a minimum of 30 minutes a day or 135 minutes per week. The legislation also states that to the extent practicable, a school district shall require a student enrolled in prekindergarten on less than a full-day basis to participate in the same type and amount of physical activity as a student enrolled in full-day prekindergarten. Full-day prekindergarten programs are defined in the Texas Education Code §25.082(a) as one that is at least seven hours each day including intermissions and recesses. A half-day program is a minimum of three hours.

DSHS Obesity Prevention Program

The DSHS Health Promotion and Chronic Disease Prevention section continued to work with the CDC grant, DP13-1305, State Public Health Actions to Prevent and Control Diabetes, Heart Disease, Obesity and Associated Risk Factors and Promote School Health. The grant started July 1, 2013 with a project period of five years. Short-term outcomes including improving state, community, worksite, school, and early care and education (ECE) environments to promote and reinforce healthful behaviors and practices across the life span related to the prevention of diabetes, cardiovascular disease and stroke, and obesity. DSHS Obesity Prevention Program (OPP) is working to promote the adoption of food service guidelines/nutrition standards, which include sodium, and to promote the adoption of physical activity in early care and education.

Childcare Outdoor Learning Environments

DSHS Obesity Prevention Program (OPP) is working to integrate into outdoor learning environments (OLE) of childcare facilities as a proven strategy to increase physical activity. Texas Workforce Commission’s Texas Rising Star Program introduced measures in 2015 related to OLE. DSHS Obesity Prevention Program conducted two Leadership Academy sessions with Texas partners to determine current practice to improve OLE in Texas. Texas partners expressed a need to identify expertise to design OLE using natural elements and best practice landscape design methods. Partners expressed intent to work together to develop in-state resources for early care and education settings. In spring 2016 OPP began a contract with North Carolina State University to provide services to build capacity within Texas in accordance with the Natural Learning Initiative’s (NLI) *Preventing Obesity by Design (POD)* and best practice landscape design indicators.

Childhood Obesity Research Demonstration

The DSHS Obesity Prevention Program supported work in the Texas Childhood Obesity Research Demonstration (CORD) project in coordination with the Michael & Susan Dell Center for Healthy Living, The University of Texas School of Public Health, Austin Regional Campus, and USDA/ARS Children’s Nutrition Research Center, and the Baylor College of Medicine to develop, deliver, and evaluate an integrated model of primary health care and public health

strategies for children in the community. DSHS utilized existing infrastructure and strategic partnerships to leverage assets during implementation and evaluation phase of the research, worked with the Michael & Susan Dell Center for Healthy Living (UTHSPH) to coordinate the communication of the intervention model and results, and provided epidemiology expertise as needed.

A key component of DSHS contribution to the CORD project was development of Your Health Matters: Growing Active and Healthy Communities. The Obesity Prevention Program partnered with the University of Texas School of Public Health (UTSPH), Brownsville to develop the continuing education curricula, “Your Health Matters: Growing Active Communities” and “Your Health Matters: Growing Healthy Communities” in English and Spanish. The purpose of this project is to train *promotores* and community health workers (CHWs) throughout Texas to promote administrative policy, systems, and environmental approaches to physical activity and nutrition in their communities. Both Your Health Matters curricula were tested in both English and Spanish, using participatory methods that included the target audience (*promotores* or CHWs), focus groups, and expert consultation from local professional health educators and evaluators. Both curricula were developed within the core principles, goals, and competency areas of the DSHS-certified training program’s curriculum framework. DSHS, in collaboration with UTSPH, has trained 358 CHWs and 63 CHW instructors. For more information on the curricula, visit www.dshs.texas.gov/ObesityTrainingsAvailable/.

Department of Family and Protective Services (DFPS)

DFPS CCL minimum standards states that center and home-based child care providers are expected to provide planned activities on a daily basis and include a variety of both child-initiated and caregiver-initiated activities. The DFPS “Basic Care Requirements for Infants” calls for infant activities that include opportunities for reaching, grasping, pulling up, creeping, crawling and walking in a safe, clean, uncluttered area. In addition, children ages 18 months and older are required to have morning and afternoon opportunities for outdoor play as well as opportunities for active play both indoors and outdoors on a daily basis.

DFPS CCL offers a variety of online courses aimed at improving the child-health options available to child care providers and parents. DFPS’ “Developmental Activities and Activity Plan” includes requirements for child care providers include helpful recommendations such as incorporating a variety of physical activities into each day and offering both child-initiated and caregiver-initiated activities.

DFPS also established guidelines for screen time in front of televisions, computers or video games in a child care center. In the guidelines, screen time is prohibited for children under the age of 2. For children 2 years and older, televisions, computers or video games may be used to supplement, but not replace, activities. The guidelines also stipulate that any screen time must be related to the planned activities, age appropriate and must not exceed two hours per day.

Texas A&M AgriLife Extension Service

The Texas A&M AgriLife Extension Service offers online professional development programs that meet caregivers’ needs for clock hours (continuing education need to meet Child Care Licensing minimum standards). A series titled “Introduction to Family Nutrition” was developed

in 2013. Within the series, a module titled “Baby’s First Year” has reference to physical activity. Likewise the module titled “Toddlers, Preschoolers and Children” includes a brief section on physical activity. The session “Ten Behaviors that Promote a Healthy Weight in Preschoolers” was developed in 2012. The entire courses can be viewed (for free) at the website: http://extensiononline.tamu.edu/courses/food_nutrition.php

Other modules located

at http://extensiononline.tamu.edu/courses/child_care.php include:

- “Why Play? Understanding the Role of Play in Early Childhood”
- “Developing Appropriate Learning Environments for Infants and Toddlers”
- “More Outside Play Please: Importance of Outside Play; the Value of Play for Preschool Children”

Child care providers were also offered a variety of self-paced online courses that explained the importance of physical activity and nutrition for pre-school children. Courses with titles such as “Developing Healthy Eating Habits In Preschoolers” and “Supporting Breastfeeding In Child Care Settings” provided information on nutrition while courses with titles such as “The Value Of Play For Preschool Children” and “More Outside Play Please: Importance Of Outside Play” encouraged incorporating physical activities into a child’s day.

Texas Department of Agriculture and Department of State Health Services

In an interagency effort to promote nutrition and exercise to 2 to 5 year olds, TDA partnered with DSHS WIC in the production and distribution of “The Adventures of Zobey Barn Dance Party/Jungle Jive” and educator DVD “The Adventures of Zobey in Preventing Childhood Obesity.” The DVDs are designed to help the children be physically active and learn about healthy foods while viewing the video. The DVDs include recipes and nutrition tips as well as video clips of fun physical activities.

Child Care Centers/Homes Physical Activity Self-Assessment Survey

A physical activity survey was developed and approved by the Council. The purpose of the physical activity survey was to collect baseline data on the number of minutes children (under the age of six) spend in physical activity (structured and unstructured) while attending outside care at child care centers and day care homes in Texas. The survey also captures information related to sedentary activities, barriers of physical activity, types of physical activity equipment and resources used in outside care and physical activity training for staff.

Department of State Health Services (DSHS) Office of Surveillance, Evaluation and Research (OSER) Physical Activity Executive Summary

Early Childhood Physical Activity Survey Executive Summary

Background

The Early Childhood Health and Nutrition Interagency Council developed and administered a statewide survey of physical activity policies and practices in childcare facilities in the State of Texas.

A listserv was created from email addresses publicly available on the Department of Family and Protective Services website using Child Care Licensing Search for Child Care Center or Home list in January 2016. There were a total of 7,542 public email addresses available, and after removing duplicates, the listserv totaled 6,561 unique email addresses.

The survey was conducted using online software in English and Spanish in February 2016. There were 827 complete or partially complete responses.

Select Findings

Findings from the survey describe policies and practices related to physical activity in childcare settings. For more information on each finding, refer to the corresponding Table in the Early Childhood Physical Activity Survey Data Report, located in the Appendix.

Physical Activity Practices

Nearly half (45.7%) of survey respondents reported that their full-day programs provide preschool children, aged 2-5 years, with 60 - 89 minutes (half-day: 30-44 minutes) of indoor and outdoor physical activity¹ each day (Table 6).

About 2 in 5 (42.0%) survey respondents reported that their full-day program provided 30-44 minutes (half-day: 10-19 minutes) of adult-led (structured) physical activity² to preschool children (Table 7).

About 2 in 5 (39.6%) survey respondents reported that their full-day program provided toddlers, aged 13-23 months, with 60 - 74 minutes (half-day: 15–29 minutes) of indoor and outdoor physical activity each day (Table 8).

About 3 in 4 (74.6%) survey respondents reported that outdoor active free play was provided 2 or more times per day for toddlers and preschool aged children (Table 19).

Among facilities participating in the Texas Rising Star program, 73.8% reported having sufficient types of physical activities, including gross motor activities supported by the outdoor learning environment; 62.5% reported having an open, grassy area for games and events for children (Table 27).

Physical Activity Policies

3 in 4 (76.3%) survey respondents reported that their facility had a written policy on physical activity and/or screen time (Table 30).

Most facilities have a written policy on physical activity or screen time. Childcare Homes had the lowest percent of respondents reporting having a written policy (55.3%) compared to

¹ Physical activity is defined as any movement of the body that increases heart rate and breathing above what it would be if a child was sitting or resting. Examples include: walking, running, crawling, climbing, jumping and dancing.

² Adult-led activities and lessons can be led by teachers or outside presenters. Examples include dancing, music and movement, motor development lessons, physically active games, and tumbling. The total amount of adult-led activity time may include multiple short activities added up over the course of the day.

childcare centers (81.4%), Early Head Start (89.5%), Head Start (78.9%), and State-funded Pre-K programs (83.3%) (Table 31).

The topics most commonly addressed by the facility’s written policy on physical activity were (Table 32):

- Shoes and clothes that allow children and teachers/caregivers to actively participate in time provided each day for indoor and outdoor physical activity (74.1%);
- Amount of time provided each day for indoor and outdoor physical activity (70.1%); and
- Unstructured (active free play) physical active play (54.3%)

The topics most commonly addressed by the facility’s written policy on screen time were (Table 33):

- Amount of screen time allowed (50.7%);
- Types of programming allowed (38.7%); and
- Appropriate supervision and use of screen time in classroom (38.5%).

Facilitators and Barriers to Physical Activity

About 1 out of 4 (25.5%) survey respondents reported that insufficient funds prevent teachers and staff from promoting physical activity; 1 in 5 (20.6%) reported lack of space or equipment prevent them promoting physical activity (Table 35).

Across all facilities, 41.8% of respondents reported that teachers and staff receive professional development on children’s physical activity one time per year; 34.4% reported that staff receives training two or more times per year (Table 36).

Facility Information

Table 2 describes the types of facilities represented by respondents.

Table 2. Facility type, Texas, 2016

| Facility | Count | Percentage |
|----------------------------|-------|------------|
| Total | 864 | 100.0 |
| Childcare Center | 635 | 73.5 |
| Childcare Home | 167 | 19.3 |
| Early Head Start | 28 | 3.2 |
| Head Start | 26 | 3.0 |
| State-funded Pre-K Program | 8 | 0.9 |

Note: Multiple responses possible.

Among facilities that responded,

- 43.4% reported that between 1 and 10 toddlers were currently enrolled at their facility, 23.2% reported that between 11 and 20 toddlers were currently enrolled, and 18.0% reported that no toddlers were currently enrolled (Table 4).
- 33.4% reported that 51 or more preschoolers were currently enrolled at their facility, 21.5% responded that between 1 and 10 preschoolers were currently enrolled, and 11.1% reported that between 31 and 40 preschoolers were currently enrolled (Table 4).

- 38.3% reported that no school-aged children were currently enrolled at their facility, 23.0% reported that between 1 and 10 school-age children were currently enrolled, and 12.3% reported that between 11 and 20 school-age children were currently enrolled (Table 4).

When asked about participation in programs that address physical activity, nearly 1 in 5 (19.3%) survey respondents reported participating in the Texas Rising Star Program (Table 5).

Respondent Demographic Information

The survey instructions stated that the survey should be completed by a person responsible for overseeing the physical activity (indoor and outdoor play) of the children in care (e.g., day care home provider, center teacher, center director, or administrator).

Most respondents (71.3%) reported they were the Center Director, and many (19.1%) reported they were the childcare home provider (Table 1).

More than a third (35.6%) of survey respondents were 50-59 years of age and almost all were female (97.0%) (Table 40).

About 14.5% of respondents were Hispanic or Latino and more than 4 in 5 (83.3%) were white (Table 40).

Limitations

The findings from the 2016 Early Childhood Physical Activity Survey do not represent all childcare facilities in Texas. Findings are only applicable to those who responded to the survey.

The Early Childhood Physical Activity Survey collects self-reported data that may introduce bias and underestimate the percentage of undesirable practices or overestimate the percentage of desirable practices or policies.

The Physical Activity Self-Assessment Survey can be found in Appendix C
The Early Childhood Physical Activity Survey Data Report in its entirety can be found in Appendix D

Decreasing Malnutrition and Undernourishment for Children Under the Age of Six

Recommendation in 2014 Legislative Report

- Provide statewide support and implement a campaign to increase awareness of and access to nutrition assistance programs such as Child and Adult Care Food Program (CACFP), Supplemental Nutrition Program for Women, Infants and Children (WIC), Supplemental Nutrition Assistance Program (SNAP), Supplemental Nutrition Assistance Program Education (SNAP-Ed), and Expanded Food and Nutrition Education Program (EFNEP) that provide guidance for improving nutrition and health in early childhood settings.

Texas Workforce Commission (TWC)

TWC distributes TDA CACFP informational brochures to 28 boards to inform day care providers about the CACFP. In addition, a one-page information sheet regarding CACFP is posted on the Texas Workforce Commission Provider Web Portal. The CACFP notice can be viewed at:

<http://www.workforcesolutionschildcare.com/ccaa/> The notice itself is linked at:

<http://www.workforcesolutionschildcare.com/ccaa/pdf/CACFP.pdf>

Texas Department of Agriculture

TDA distributed CACFP information brochures by the regional Education Service Centers (ESC) during CACFP nutrition trainings to inform interested parties about the CACFP. TDA's CACFP Insight e-News highlighted the National CACFP Sponsors Association resources/educational materials for national CACFP week March 13 – 20, 2016. The CACFP Insight e-News is circulated to 1,400 contracting entities in the CACFP program.

Nutrition Assistance Programs in Texas

Through the U.S. Department of Agriculture's (USDA) Farmers Market Nutrition Program TDA distributes vouchers to WIC eligible women and children to use for purchasing fresh, unprepared, locally grown fruits and vegetables. Using the vouchers provides low-income pregnant, breastfeeding and non-breastfeeding post-partum women, and children up to 5 years of age with access to fresh, healthy foods at TDA-certified farmers' markets.

USDA's Summer Food Service Program is administered in Texas by TDA and it is open to children 18 and younger across the state. A USDA pilot program implemented in 2015 is facilitating the use of approved WIC clinics as sites where Summer Food Service Program meals are served to eligible WIC clients.

For food insecure children, meals provided in child care centers may comprise a large fraction of food that they eat — making the provision of *healthy* food through these programs especially important. Food insecurity also triggers obesity when young children develop poor nutritional habits. Texas is among the states with the highest rates of food insecurity in the nation for children. It is also estimated that almost one in four of Texas children live in food insecure households.^{xxxvi}

While national food assistance programs are invaluable in providing assistance to those in need, additional support and increasing participation in these nutrition programs is needed.

To reach very young children, food assistance programs must connect with early child care providers. While approximately 15 percent of preschool children are primarily cared for by their relatives, most preschoolers who spend time in non-parental care arrangements are placed in center-based care such as child-care centers, preschools, Head Start programs or family child-care homes. Child care settings such as CACFP provide numerous opportunities to promote healthy eating and physical activity behaviors among preschool children.^{xxxvii}

Many low-income working parents rely on child care and afterschool programs to provide a safe and healthy place for their children while they commute and work. By providing partial reimbursement for nutritious meals and snacks for eligible children who are enrolled at participating child care centers, day care homes and Head Start programs, CACFP plays an

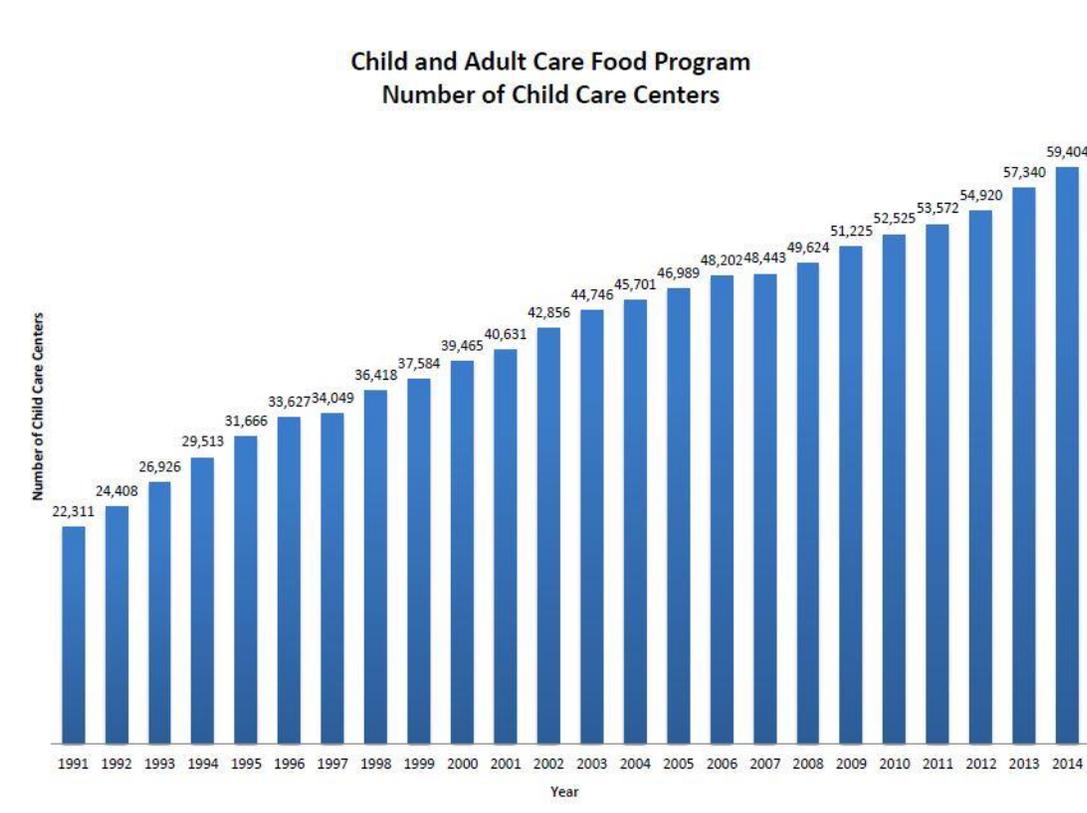
important role in improving the quality of those programs and in making them more affordable for low-income parents.

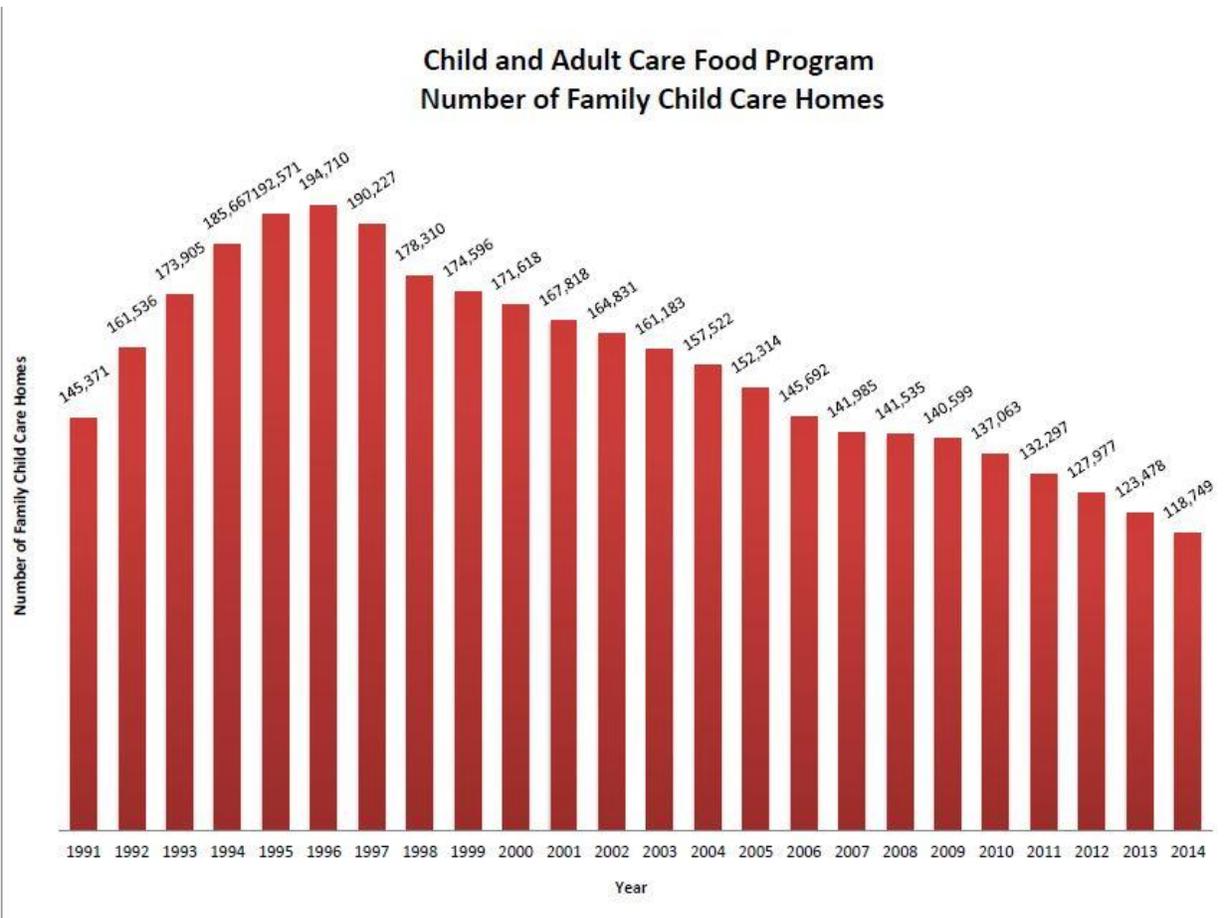
While CACFP has several segments, the majority of CACFP participants are preschool-aged children attending participating family child homes, child care centers or Head Start programs. Depending on the type of program, eligibility is based either on the poverty status of the area or on the income of the enrolled children.

Each year the Food Research and Action Center (FRAC) analyze CACFP participation data in the Child and Adult Care Food Program (CACFP). U.S. Department of Agriculture data is used to develop a picture of participation trends in the U.S. as a whole, each of the 50 states, and the District of Columbia. Below outlines changes in the number of CACFP child care centers and family child care homes.

The growth in the number of CACFP centers has led to a 136 percent increase in the number of children being served each day through CACFP centers since FY 1996. Center participation is consistently rising each year. In the last 19 years, the number of centers has almost doubled, with an increase of 85 percent. Over 3 million children enrolled in child care centers benefited daily from CACFP in FY 2015, a nine percent increase from FY 2014.

However, the number of family child care homes has decreased by 42 percent, largely due to meals test implemented in FY 1996, which changed the way family child care homes were reimbursed.





Key findings for fiscal year 2013 include: FRAC info for Texas that is listed on page 35-36: <http://frac.org/wp-content/uploads/2010/07/tx.pdf>

Child and Adult Care Food Program (CACFP) (FY 2012) Texas

No update information for CACFP in FY 2013 for Texas these numbers will remain the 2012 information

| | |
|---|---------------|
| Number of Participating Family Child Care Homes | 6,159 |
| Family Child Care Home Average Daily Participation of Children | 83,162 |
| Change in Family Child Care Daily Participation in Last 10 Years | 99.6% |
| Number of Participating Child Care Centers (Includes Head Start) | 4,892 |
| Child Care Center Average Daily Participation of Children (Includes Head Start) | 267,431 |
| Change in Center Daily Participation in Last 10 Years | 85.2% |
| Federal Funding for CACFP | \$240,733,640 |

Special Supplemental Nutrition Program for Women, Infants and Children (WIC) (FY 2013)

| | |
|--|---------------|
| Average Monthly Participation | 969,893 |
| Women | 249,607 |
| Infants | 227,473 |
| Children | 492,814 |
| Change in Average Monthly Participation in the last 10 Years | 23.3% |
| Federal Funding for WIC | \$533,300,881 |

SNAP/Food Stamp Program (FY 2013)

<http://www.hhsc.state.tx.us/research/SNAP-Statewide.asp>

| | |
|---|-----------------|
| Average Monthly Participation (Individuals) | 4,041,891 |
| Change in Participation in Last 5 Years | 34.6% |
| Average Monthly Benefit per Person | \$122.35 |
| Participation Rate of Eligible Persons (FY 2010) | 75.0% |
| Rank Among States | 43 |
| Participation Rate of Eligible Working Poor (FY 2010) | 71.0% |
| Federal Funding for SNAP/Food Stamps | \$6,006,734,649 |

Texas**Demographics, Poverty and Food Insecurity Population (2013)**

| | |
|-------------------------|------------|
| Total People | 26,448,193 |
| Children (Under Age 18) | 6,987,871 |

Income and Poverty (2012)

| | |
|---|-----------|
| Median Household Income | \$53,027 |
| Rank Among States (Highest to Lowest) | 26 |
| Total People Living In Poverty | 4,530,560 |
| Poverty Rate | 17.5% |
| Rank Among States (Highest to Lowest) | 14 |
| Children (Under Age 18) Living In Poverty | 1,740,560 |
| Child Poverty Rate | 25.0% |
| Rank Among States (Highest to Lowest) | 14 |
| Total People Living Below 185% of Federal Poverty Level | 9,178,328 |

Food Insecurity Among Households (2011-2013, 3-Year Averages)

| | |
|---|-----------|
| Number of Households that are Food Insecure | 1,695,060 |
| Percent of Households that are Food Insecure | 18.0% |
| Number of Households that are Very Low Food Secure | 593,271 |
| Percent of Households that are Very Low Food Secure | 6.3% |

Secure

Texas p.1 | Updated Feb.2015 For More Information: frac.org/reports-and-resources/national-and-state-program-data-2

Conclusion

Moving forward, the Council and stakeholders will continue efforts to increase access to breast milk, whether direct-fed, expressed, or donor milk throughout Texas; increase consumption of fruits and vegetables and increase physical activity in Texas for children ages 6 and under to achieve improved health and nutrition outcomes for the state's youngest population.

Appendix A: Lunch is in the Bag

Roberts-Gray et al. *International Journal of Behavioral Nutrition and Physical Activity* (2016) 13:3
DOI 10.1186/s12966-015-0326-x

International Journal of Behavioral
Nutrition and Physical Activity

RESEARCH

Open Access



Efficacy of the *Lunch is in the Bag* intervention to increase parents' packing of healthy bag lunches for young children: a cluster-randomized trial in early care and education centers

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Abstract

Background: Lunches that parents pack for their young children to eat at school or the Early Care and Education (ECE) center fall short of recommended standards. *Lunch is in the Bag* is a multi-level behavioral nutrition intervention to increase parents' packing of fruit, vegetables, and whole grains in their children's lunches. Designed for implementation in ECE centers, the five-week long intervention is followed three months later with a one-week booster.

Methods: Efficacy of *Lunch is in the Bag* was tested in cluster randomized trial. Participants were 633 families from 30 ECE centers (15 intervention, 15 control) across Austin, San Antonio, and Houston, Texas, USA. Primary outcomes were servings of fruit, vegetables, and whole grains observed in the children's parent-packed bag lunches. Servings of refined grains, meats/beans/eggs/nuts, dairy, chips, and sweets also were observed. Data were collected at baseline, post-intervention (6-week follow-up), pre-booster (22-week follow-up), and post-booster (28-week follow-up). Time-by-treatment interactions were analyzed separately for each of the food groups using multi-level models to compare changes from baseline. Analyses were adjusted for relevant demographic variables and clustering within centers and parents.

Results: The intervention effected increases from baseline to 6-week follow-up in vegetables (0.17 servings, SE = 0.04, $P < 0.001$) and whole grains (0.30 servings, SE = 0.13, $P = 0.018$). The increase in whole grains was maintained through the 28-week follow-up (0.34 servings, SE = 0.13, $P = 0.009$). Fruit averaged more than 1.40 servings with no differences between groups or across time. The intervention prevented increase in sweets (-0.43 servings, SE = 0.11, $P < .001$, at the 22-week follow-up). Parents persisted, however, in packing small amounts of vegetables (averages of 0.41 to 0.52 servings) and large amounts of sweets and chips (averages of 1.75 to 1.99 servings).

Conclusions: The need for and positive effects of the *Lunch is in the Bag* intervention at ECE centers where parents send bag lunch for their preschool-aged children was confirmed. An important direction for future research is discovery of more options for leveraging the partnership of ECE centers and families to help young children learn to eat and enjoy vegetables and other healthy foods in preference to less healthy choices such as chips and sweets.

Trial registration: The Clinical Trials Number is NCT01292434.

Keywords: Packed lunch, Early childhood, Parent-focused

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Dietary Quality of Preschoolers' Sack Lunches as Measured by the Healthy Eating Index



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ARTICLE INFORMATION

Article history

Submitted 2 March 2015
Accepted 20 May 2015
Available online 17 July 2015

Keywords

Early care and education
Sack lunch
Preschool children
Healthy Eating Index (HEI)
Parents

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<http://dx.doi.org/10.1016/j.jand.2015.05.017>

ABSTRACT

Background Eating habits are developed during the preschool years and track into adulthood, but few studies have quantified dietary quality of meals packed by parents for preschool children enrolled in early care and education centers.

Objective Our aim was to evaluate the dietary quality of preschoolers' sack lunches using the Healthy Eating Index (HEI) 2010 to provide parents of preschool children with guidance to increase the healthfulness of their child's lunch.

Design This study is a cross-sectional analysis of base-line dietary data from the Lunch Is in the Bag trial.

Participants A total of 607 parent-child dyads from 30 early care and education centers in Central and South Texas were included.

Main outcome measures Total and component scores of the HEI were computed using data obtained from direct observations of packed lunches and of children's consumption.

Statistical analysis Three-level regression models with random intercepts at the early care and education center and child level were used; all models were adjusted for child sex, age, and body mass index (calculated as kg/m²).

Results Mean HEI-2010 total scores were 58 for lunches packed and 52 for lunches consumed, out of 100 possible points. Mean HEI component scores for packed and consumed lunches were lowest for greens and beans (6% and 8% of possible points), total vegetables (33% and 28%), seafood and plant proteins (33% and 29%), and whole grains (38% and 34%); and highest for empty calories (85% and 68% of possible points), total fruit (80% and 70%), whole fruit (79% and 64%), and total protein foods (76% and 69%).

Conclusions Parents of preschool children pack lunches with low dietary quality that lack vegetables, plant proteins, and whole grains, as measured by the HEI. Education of parents and care providers in early care and education centers is vital to ensure that preschoolers receive high dietary-quality meals that promote their preference for and knowledge of a healthy diet.

J Acad Nutr Diet. 2015;15:1779-1788.

THE HIGH PREVALENCE OF OVERWEIGHT AND obesity among young children is a public health concern. In the United States, one of every four children aged 2 to 5 years is overweight or obese.¹ Dietary factors have been established as significant predictors of weight in preschool-aged children,² where the diet of overweight and obese children is characterized by a high consumption of energy-dense snack foods and meals.^{3,4} Dietary intakes that include low-nutrient, high-energy-dense foods can limit children's intake and preference for fruits,

vegetables, and whole grains.^{3,5-7} In addition, research has shown that food preferences and eating habits developed during preschool years have a significant impact on diet quality in adulthood.^{4,8,9} Early food-related experiences could define future dietary patterns and health consequences,^{4,10} and early food preferences are influenced by exposure to food.¹¹⁻¹⁴ Therefore, experiences such as eating in early childhood education centers can play an important part in determining future food preferences.^{12,15}

Compliance with nutritional guidelines can be used to evaluate and recommend food groups and portion sizes to parents of preschool children. Studies have reported that preschooler's sack lunches do not meet the dietary recommendations of the Institute of Medicine's Dietary Reference Intakes.¹⁶ Another study analyzed the foods offered by early care and education centers in North Carolina and found that preschoolers' lunches, on average, did not meet dietary

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Development of a Method to Observe Preschoolers' Packed Lunches in Early Care and Education Centers



Sara J. Sweitzer, PhD, RD, LD; Courtney E. Byrd-Williams, PhD; Nalini Ranjit, PhD; Maria Jose Romo-Palafox, RD; Margaret E. Briley, PhD, RD, LD; Cynthia R. Roberts-Gray, PhD; Deanna M. Hoelscher, PhD, RD, LD

ARTICLE INFORMATION

Article history

Submitted 24 October 2014
Accepted 11 March 2015
Available online 12 May 2015

Keywords

Early care and education center
Nutrition
Parent
Lunchbox
Observation

2212-2672/Copyright © 2015 by the Academy of Nutrition and Dietetics.
<http://dx.doi.org/10.1016/j.jand.2015.03.012>

ABSTRACT

Background As early childhood education (ECE) centers become a more common setting for nutrition interventions, a variety of data collection methods are required, based on the center foodservice. ECE centers that require parents to send in meals and/or snacks from home present a unique challenge for accurate nutrition estimation and data collection. We present an observational methodology for recording the contents and temperature of preschool-aged children's lunchboxes and data to support a 2-day vs a 3-day collection period.

Methods Lunchbox observers were trained in visual estimation of foods based on Child and Adult Care Food Program and MyPlate servings and household recommended measures. Trainees weighed and measured foods commonly found in preschool-aged children's lunchboxes and practiced recording accurate descriptions and food temperatures. Training included test assessments of whole-grain bread products, mixed dishes such as macaroni and cheese, and a variety of sandwich preparations. Validity of the estimation method was tested by comparing estimated to actual amounts for several distinct food types. Reliability was assessed by computing the intraclass correlation coefficient for each observer as well as an interrater reliability coefficient across observers. To compare 2- and 3-day observations, 2 of the 3 days of observations were randomly selected for each child and analyzed as a separate dataset. Linear model estimated mean and standard error of whole grains, fruits and vegetables, and amounts of energy, carbohydrates, protein, total fat, saturated fat, dietary fiber, thiamin, riboflavin, niacin, vitamins A and C, calcium, iron, sodium, and dietary fiber per lunch were compared across the 2- and 3-day observation datasets.

Results The mean estimated amounts across 11 observers were statistically indistinguishable from the measured portion size for each of the 41 test foods, implying that the visual estimation measurement method was valid: intraobserver intraclass correlation coefficients ranged from 0.951 (95% CI 0.91 to 0.97) to 1.0. Across observers, the interrater reliability correlation coefficient was estimate data 0.979 (95% CI 0.957 to 0.993). Comparison of servings of fruits, vegetables, and whole grains showed no significant differences for serving size or mean energy and nutrient content between 2- and 3-day lunch observations.

Conclusions The methodology is a valid and reliable option for use in research and practice that requires observing and assessing the contents and portion sizes of food items in preschool-aged children's lunchboxes in an ECE setting. The use of visual observation and estimation with Child and Adult Care Food Program and MyPlate serving sizes and household measures over 2 random days of data collection enables food handling to be minimized while obtaining an accurate record of the variety and quantities of foods that young children are exposed to at lunch time.

J Acad Nutr Diet. 2015;15:1249-1259.

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WITH THE INCREASED RECOGNITION OF THE importance of addressing nutrition early in life, the number of nutrition interventions directed to preschool-aged children has grown substantially in the past few years.¹ Early care and education (ECE) centers, with their economies of scale, tend to be preferred locations for such interventions; however, the majority of these interventions target food prepared



Effectiveness of the *Lunch is in the Bag* program on communication between the parent, child and child-care provider around fruits, vegetables and whole grain foods: A group-randomized controlled trial



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ARTICLE INFO

Available online 17 July 2015

Keywords:

Preschool
Parent-child communication
Parent-childcare provider communication
Early care education
Nutrition
Fruits
Vegetables
Whole grain foods

ABSTRACT

Objective. To evaluate the effectiveness of the parent- and early care education (ECE) center-based *Lunch is in the Bag* program on communication between parent, child, and their ECE center providers around fruits, vegetables and whole grain foods (FVWG).

Method. A total of $n = 30$ ECE center; 577 parent-child dyads participated in this group-randomized controlled trial conducted from 2011 to 2013 in Texas ($n = 15$ ECE center, 327 dyads intervention group; $n = 15$ ECE center, 250 dyads comparison group). Parent-child and parent-ECE center provider communication was measured using a parent-reported survey administered at baseline and end of the five-week intervention period. Multilevel linear regression analysis was used to compare the pre- to post-intervention changes in the parent-child and parent-ECE center provider communication scales. Significance was set at $p < 0.05$.

Results. At baseline, parent-child and parent-ECE center provider communication scores were low. There was a significant increase post-intervention in the parent-ECE center provider communication around vegetables (Adjusted $\beta = 0.78$, 95%CI: 0.13, 1.43, $p = 0.002$), and around fruit (Adjusted $\beta = 0.62$, 95%CI: 0.04, 0.20, $p = 0.04$) among the parents in the intervention group as compared to those in the comparison group. There were no significant intervention effects on parent-child communication.

Conclusion. *Lunch is in the Bag* had significant positive effects on improving communication between the parents and ECE center providers around FVWG.

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Introduction

Recent data indicates that children ages 2 to 18 years in the United States (U.S.) fail to meet the recommended intakes of healthy food such as fruits, vegetables and whole grains (FVWG), with 60% not consuming enough fruit and 93% not consuming enough vegetables (Kim et al., 2014). While the intake of FVWG has declined steadily

over the last few years, the enrollment of preschool-age children in early care and education (ECE) centers has increased. Approximately 80% of preschoolers in the U.S. attend some form of non-parental childcare (Mamedova and Redford, 2013). These preschoolers depend on their parents and the ECE center providers for their dietary needs, highlighting the importance of communication around child dietary needs and habits between parent-child as well as the parent-ECE center providers.

The literature evaluating the communication between parent-child and parent-ECE center providers around healthy foods such as FVWG is sparse. Studies have shown that the quantity and quality of messages given by parents are correlated (positively or negatively) to nutrition knowledge scores among children of preschool age (Anliker et al., 1990). Other studies have shown that food preferences of young

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Appendix B: Texas Childhood Obesity Research Demonstration Project

Evaluation of the CATCH Early Childhood Program Implementation Index in Head Start Children in Texas: The TX CORD Study

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Introduction

- 22% of children 2-5 years old in the U.S. are overweight or obese, with low-income minorities at increased risk.¹
- No data is available on implementation levels of early childhood programs in low-income centers
- The Texas Childhood Obesity Research Demonstration (TX CORD) study was implemented to prevent childhood obesity among children ages 2 to 12 from low-income minority populations.
- CATCH Early Childhood (CATCH EC) is a preschool-based program grounded in the Social Cognitive Theory and modeled after the Coordinated Approach to Child Health (CATCH) program. CATCH EC includes: 1) It's Fun to be Healthy! classroom curriculum; 2) >500 structured physical activities; 3) Parent tip-sheets.

Aims

To assess degree of implementation of the CATCH Early Childhood program across Head Start centers participating in the TX CORD Study.

Methods

Design: serial cross-sectional design.

Sample: Center directors and teachers from 12 Head Start centers in the intervention catchment area in Houston and Austin, TX in 2013 (Year 1) and 2014 (Year 2).

Instrument: CATCH EC Implementation Index (CECI) was calculated using self-reported data from:

- Teacher survey - 22 questions used; 17 directly measured CATCH EC program activities, and 5 measured other non-CATCH EC activities related to implementation.
- Center director survey - 37 questions used; 12 directly measured CATCH EC program activities, and 25 measured other non-CATCH EC activities related to implementation.

Analysis:

- Percent score was computed for each question: $\text{Percent Score} = (\text{original score}) / (\text{original potential score range})$
- Only the surveys with $\geq 80\%$ of the CATCH related items and total CECI items answered were included in the CECI scores calculation.
- Average of teacher and center scores was computed for CATCH-related CECI and Total CECI
- Quartiles of the averaged CATCH-related CECI and Total CECI were conducted to investigate the degree of implementation for each participating Head Start center as comparing with their counterparts.

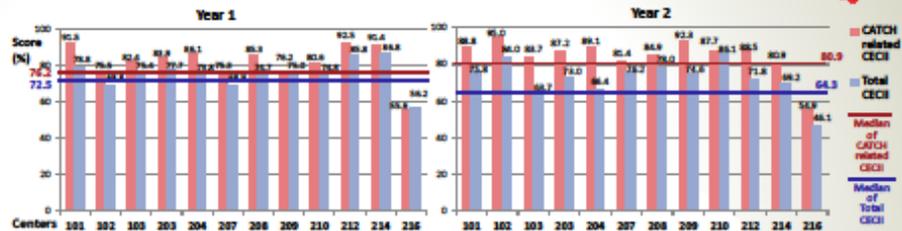


Figure 1. CATCH EC Implementation Index at Head Start Centers (Intervention centers, n=12)

Example Questions



- Teacher CATCH-related question**
- Since the beginning of this school year, have you sent home any CATCH Early Childhood Parent Tip Sheets?
- Teacher Non-CATCH question**
- Has your school conducted any of the following programs or events since the beginning of this school year? (e.g. center-wide health-related family event outside of school hours)

Center CATCH-related question

- How supportive of CATCH Early Childhood have the teacher, parents, director... been since the beginning of this school year?

Center Non-CATCH question

- Active (free) play time is provided to all children (including indoor and outdoor)
- The center has a written policy on nutrition and food service that covers most of the above topic



Figure 2. Infographic of the TX CORD study

Results

- CATCH EC Implementation Index showed medium to high scores at both CATCH-related score and Total CECI.
- At year one, 10 centers scored greater than or equal to the median of CATCH related CECI among all participating centers. At year two, 11 centers scored greater than or equal to the median of CATCH related CECI among all participating centers.
- At year one, 9 centers scored greater than or equal to the median of Total CECI among all participating centers. At year two, 10 centers scored greater than or equal to the median of CATCH related CECI among all participating centers.
- Generally, centers score higher on their CATCH-related CECI than on the Total CECI. Centers that score higher in CATCH-related CECI also score higher in Total CECI.

Acknowledgements

This research was supported by CDC cooperative agreement 5U49DP-13-007, the Michael and Susan Dell Foundation through the Michael & Susan Dell Center for Healthy Living, USDA (USDA/ARS) Children's Nutrition Research Center, Department of Pediatrics, Baylor College of Medicine, Houston, Texas. The content is solely the responsibility of the author and does not necessarily represent the official views of the funding organization. The authors also acknowledge the Harris County Department of Education Head Start director and teaching staff for their support of the project.

Conclusion

- Both teachers and directors reported medium to high implementation of CATCH EC, which conformed to the design of the program.
- CATCH EC Implementation Index is the first of its kind to quantify the degree of program implementation.
- The differences between CATCH-related CECI and Total CECI indicated centers with better program implementation did not always have policies/regulations/on-going activities that support obesity prevention efforts.
- Future research should examine how implementation affects program outcomes.
- This study has limitation in comparing the results between year one and year two due to the serial cross-sectional design.

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Incorporating Primary and Secondary Prevention Approaches To Address Childhood Obesity Prevention and Treatment in a Low-Income, Ethnically Diverse Population: Study Design and Demographic Data from the Texas Childhood Obesity Research Demonstration (TX CORD) Study

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Abstract

Background: There is consensus that development and evaluation of a systems-oriented approach for child obesity prevention and treatment that includes both primary and secondary prevention efforts is needed. This article describes the study design and baseline data from the Texas Childhood Obesity Research Demonstration (TX CORD) project, which addresses child obesity among low-income, ethnically diverse overweight and obese children, ages 2–12 years; a two-tiered systems-oriented approach is hypothesized to reduce BMI z-scores, compared to primary prevention alone.

Methods: Our study aims are to: (1) implement and evaluate a *primary obesity prevention* program; (2) implement and evaluate efficacy of a 12-month family-centered *secondary obesity prevention* program embedded within primary prevention; and (3) quantify the incremental cost-effectiveness of the secondary prevention program. Baseline demographic and behavioral data for the primary prevention community areas are presented.

Results: Baseline data from preschool centers, elementary schools, and clinics indicate that most demographic variables are similar between intervention and comparison communities. Most families are low income ($\leq \$25,000$) and Hispanic/Latino (73.3–83.8%). The majority of parents were born outside of the United States. Child obesity rates exceed national values, ranging from 19.0% in preschool to 35.2% in fifth-grade children. Most parents report that their children consume sugary beverages, have a television in the bedroom, and do not consume adequate amounts of fruits and vegetables.

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Appendix C: Physical Activity Self-Assessment Survey
Early Childhood Physical Activity Survey
Early Childhood Health and Nutrition Interagency Council

Early Childhood Physical Activity Survey
Early Childhood Health and Nutrition Interagency Council

The survey should be completed by a person responsible for overseeing the physical activity (indoor and outdoor play) of the children in care (e.g., day care home provider, center teacher, center director, or administrator).

For this survey, use the age groups below when answering questions:

Infants (0 – 12 months)

Toddlers (13 – 23 months)

Preschool (age 2 – 5 years)

All Children (Toddlers and Preschool)

* 1. What is today's date?

Today's Date MM DD YYYY
 / /

* 2. What is your current position? Check all that apply.

- Principal
- Center Director
- Center Teacher
- Child Care Home Provider
- Other (please specify)

* 3. Do you work at a:

- Child care center
- Child care home
- Early Head Start
- Head Start
- State-funded Pre-K program

4. How many infants (age 0-12 months) are currently enrolled in your facility?

5. How many toddlers (13-23 months) are currently enrolled in your facility?

6. How many preschool age children (age 2-5 years) are currently enrolled in your facility?

7. How many children age 6 and up are currently enrolled in your facility?

* 8. How long have you worked at this facility?

- Less than 1 year
- 1 year
- 2-5 years
- 6-10 years
- More than 10 years

* 9. Does your facility participate in programs that address physical activity? Choose all that apply.

- Texas Rising Star Program
- National Association for the Education of the Young Child (NAEYC)
- National Early Childhood Program Accreditation (NECPA)
- National Accreditation Commission (NAC) for Early Care and Education Programs
- National Association of Family Child Care (NAFCC)
- Let's Move Child Care
- I Am Moving, I Am Learning
- Coordinated Approach to Child Health (CATCH)
- None of the above

Other (please specify)

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Answer each question as best you can. If none of the answer choices seem quite right, just pick the closest fit. Answer choices in parentheses () are for half-day programs. Full-day programs should use the answer choices without parentheses.

10. The amount of time provided to preschool children (age: 2 – 5 years) for indoor and outdoor physical activity each day is:

Definition: Physical activity is any movement of the body that increases heart rate and breathing above what it would be if a child was sitting or resting. Examples include: walking, running, crawling, climbing, jumping and dancing.

- Less than 60 minutes (Half-day: less than 30 minutes)
- 60 – 89 minutes (Half-day: 30 – 44 minutes)
- 90 – 119 minutes (Half-day: 45 – 59 minutes)
- 120 minutes or more (Half-day: 60 minutes or more)

11. The amount of adult-led (structured) physical activity provided to preschool children (age: 2 – 5 years) is:

Definition: Adult-led activities and lessons can be led by teachers or outside presenters. Examples include dancing, music and movement, motor development lessons, physically active games, and tumbling. The total amount of adult-led activity time may include multiple short activities added up over the course of the day.

- Less than 30 minutes (Half-day: less than 10 minutes)
- 30-44 minutes (Half-day: 10 – 19 minutes)
- 45 – 59 minutes (Half-day: 20 – 29 minutes)
- 60 minutes or more (Half-day: 30 minutes or more)

12. The amount of time provided to toddlers (age 13-23 months) for indoor and outdoor physical activity each day is:

- Less than 60 minutes (Half-day: less than 15 minutes)
- 60 – 74 minutes (Half-day: 15 – 29 minutes)
- 75 – 89 minutes (Half-day: 30 –44 minutes)
- 90 minutes or more (Half-day: 45 minutes or more)

13. During unstructured physical activity playtime, teachers or caregivers:

Definition: Unstructured physical activity is the active free play that children do when they are free to play on their own. Free play can include swinging, sliding, climbing pushing, pulling, riding, or playing chase. In free play, the adult watches and encourages active play but does not lead the children's play.

- Rarely or never join children in active play (mostly sit or stand)
- Sometimes join children in active play
- Often or always join children in active play
- Often or always join children in active play and make positive statements about the activity

14. Our program offers "tummy time" to non-crawling infants (age 0-12 months):

Definition: Tummy time is supervised time when an infant is awake and alert, lying on her/his belly. Opportunities for tummy time should last as long as possible to help infants learn to enjoy it and build their strength. For infants who are not used to it or do not enjoy it, each period of tummy time can start at 1 – 2 minutes, and build up to 5-10 minutes over time.

- 1 time per day or less (Half-day: 1 time every other day)
- 2 times per day (Half-day: 1 time per day)
- 3 times per day (Half-day: 2 times per day)
- 4 times per day or more (Half-day: more than 2 times per day)

15. Teachers offer developmentally appropriate portable play equipment to infants during tummy time and other indoor activities:

Definition: Portable play equipment for infants includes balls, soft blocks, mirrors to view self and rattles.

- Rarely or never
- Sometimes
- Often
- Always

16. Outside of nap and meal times, the longest that infants (age 0-12 months) spend in seats, swings, or ExcerSaucers at any one time is:

- 30 minutes or more
- 15-29 minutes
- 1-14 minutes
- Infants are never placed in seats, swings, or ExcerSaucers

17. Outside of nap and meal times, the longest that preschool children (age: 2 – 5 years) and toddlers (13 to 23 months) are expected to remain seated at any one time is:

- 30 minutes or more
- 20-29 minutes
- 15-19 minutes
- Less than 15 minutes

18. For children 2 years of age and older, the amount of screen time allowed in our program each week is:

Definition: screen time includes any time spent watching shows or playing games (including active video games) on a screen. Screens can include televisions; desktop, laptop, or tablet computers; or smart phones.

Minutes of educational screen time per week

Minutes of recreational screen time per week

19. For children under 2 years of age, the amount of screen time allowed in our program each week is:

Minutes of educational screen time per week

Minutes of recreational screen time per week

20. Staff members restrict active play time for children who misbehave:

- Never
 - Some staff members
 - Most staff members
 - All staff members
-

21. Outdoor active free play is provided for all children (toddlers and preschool):

- 1 time per week or less
- 4 times per week
- 1 time per day
- 2 or more times per day

22. Outdoor learning environment and activities are linked to enforce indoor learning:

- Never
- Rarely
- Sometimes
- Often

23. Which of the following best practice indicators for a model outdoor learning environment does your facility include? Choose all that apply.

- There are at least 10 outdoor play and learning settings for different activities.
 - There are looping, curvy primary pathways provided for circulation and available for children to use with wheeled toys.
 - There is an open, grassy area for games and events for children.
 - There are sufficient (man-made) shade structures, in addition to trees, to provide children with protection from the sunlight.
 - There are sufficient different types of natural, loose materials (such as leaves, sticks, gravel, seeds) present and children are allowed to play freely with them.
 - There are sufficient different types of wheeled toys, portable play equipment (such as balls, blocks, jump rope), and play materials (such as dress-up clothes) available to stimulate creative play and children are allowed to play freely with them.
 - There are sufficient types of physical activities, including gross motor activities supported by the outdoor learning environment (such as running, jumping on/off, crawling through, rolling, swinging, throwing, balancing, climbing).
 - There are sufficient trees providing cover for about 1/3rd of the outdoor area.
 - At least ¼ of trees are edible fruit or nut species.
 - There are sufficient shrubs (about 3 for every 100 sq. ft.), including at least ¼ fruiting shrubs and vines.
 - There is a designated vegetable garden with sufficient produce for repeated opportunities for snacking and/or meals during growing seasons.
 - There is an outdoor classroom/ program base/storage available for tools, equipment and materials for outdoor learning.
 - None of the above
-

24. Physical activity education for children (motor-skill development) is provided through a standardized curriculum:

Definition: Standardized curriculum is the academic content of a child's day. Curriculum is an imperative, complex concept that includes a host of activities and learning experiences, that include daily activities – circle time, song time, active play time, story time, craft time, etc. Standardized curriculums include but not limited to: Bank Street, Reggio Emilia, and High/Scope.

- Never
- 1 time per month
- 2-3 times per month
- 1 or more time per week

25. The facility shows visible support for physical activity by:

- No posters, pictures, or books about physical activity are displayed.
- A few posters, pictures, or books about physical activity displayed in a few rooms.
- Posters, pictures, or books about physical activity are displayed in most rooms.
- Posters, pictures, or books about physical activity are displayed in all rooms.

* 26. Does your facility have a written policy on physical activity and/or screen time?

Definition: A written policy can include any written guidelines about your program's operations or expectations for teachers, staff, children, and families. Policies can be included in parent handbooks, staff manuals and other documents.

- Yes
- No

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27. Which of the following topics are addressed by the written policy? Choose all that apply.

- No written physical activity policy
- Structured (adult-led active play) physical active play
- Unstructured (active free play) physical active play
- Amount of time provided each day for indoor and outdoor physical activity
- Limiting long periods of seated time for children
- Not withholding physical activity as punishment
- Shoes and clothes that allow children and teachers/caregivers to actively participate in physical activity
- Education for teachers/caregivers on children's physical activity
- Education for children on physical activity
- Education for families on children's physical activity
- Supporting physical activity (e.g. staff involved during active play time, visible display in classrooms and common areas)
- Policy does not include these topics
- Other (please specify)

28. Our written policy on screen time includes the following topics: Choose all that apply.

- No written screen time policy
- Amount of screen time allowed
- Types of programming allowed
- Appropriate supervision and use of screen time in classrooms
- Not using screen time as a reward or to manage challenging behaviors
- Professional development on screen time
- Education for families on screen time
- Policy does not include these topics
- Other (please specify)

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29. Which of the following prevent you from promoting physical activity in your facility? Choose all that apply.

- Lack of support from administration
- Lack of support from teachers
- Lack of support from parents/families
- Lack of staff training and education in the area of physical activity
- Lack of space or equipment
- Lack of established policies on physical activity (e.g. curriculum, materials)
- Insufficient funds
- Lack of physical education resources
- Other (please specify)

* 30. Teachers and staff receive professional development on children's physical activity:

Definition: For this assessment, professional development on children's physical activity does not include training on playground safety. Professional development can include taking in-person or online training for contact hours or continuing education credits. It can also include information presented at staff meetings.

- Never
- Less than 1 time per year
- 1 time per year
- 2 times per year or more

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31. Professional development for current staff on children's physical activity has included the following topics: (Choose all that apply)

- Recommended amounts of daily physical activity for young children
- Encouraging children's physical activity
- Limiting long periods of seated time for children
- Children's motor skill development
- Communicating with families about encouraging children's physical activity
- Our program's policies on physical activity
- Other (please specify)

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Demographics

32. What is your age?

33. What is your gender?

* 34. What is your facility's zip code?

* 35. What language(s) do the child care providers primarily speak in your center, home or facility?

- Only English
- More English than another language
- Only Spanish
- More Spanish than another language
- Both English and Spanish
- Language other than English or Spanish (please specify)

36. What is the highest grade or year of school you completed?

- Never attended school or only attended kindergarten
- Elementary (grades 1 – 8)
- Some high school (grades 9 – 12)
- High School graduate or GED
- Child Development Associate (CDA)
- Some college or technical school (College 1 year to 3 years)
- College graduate (College 4 years or more)
- Graduate Degree

37. Are you Hispanic or Latino?

Yes

No

38. Which one of these groups would you say best represents your race?

White

Black or African American

Asian

Native Hawaiian or Other Pacific Islander

American Indian or Alaska Native

More than one race

Other (please specify)

Appendix D: The Early Childhood Physical Activity Survey Data Report

Early Childhood Physical Activity Survey Data Report, Texas 2016

Requested on Behalf of the Early Childhood Health and Nutrition Interagency Council

Requested by Christina Thi, MPH, RD, LD

Obesity Prevention Coordinator

Obesity Prevention Program

Health Promotion and Chronic Disease Prevention Section

Texas Department of State Health Services on behalf of

The Early Childhood Health and Nutrition Interagency Council

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August 10, 2016

The Early Childhood Health and Nutrition Interagency Council (“Council”) developed and administered a statewide survey of physical activity policies and practices in childcare facilities of the State of Texas. The Council collaboratively designed the survey using questions from previously tested childcare surveys (Go NAP SACC; Rudd Center Child Care Nutrition and Physical Activity Assessment; Let’s Move Child Care; and the Texas Childhood Obesity Research Demonstration (CORD) childcare survey, a combination of WellCCAT and Let’s Move Child Care). The Council finalized the survey in April 2015 and administration methods in December 2015. The Texas Department of State Health Services (DSHS) Health Promotion and Chronic Disease Prevention Section (HPCDPS) housed a physical activity subject matter expert, as well as epidemiologists and evaluators in the Office of Surveillance, Evaluation and Research (OSER). HPCDPS administered and analyzed the survey, in addition to contributing to the survey design. DSHS Language Services

translated the survey to Spanish. The Obesity Prevention Program at the DSHS HPCDPS conducted the survey of early childcare centers in Texas, including licensed care centers, homes, and registered homes, on behalf of the Council in February 2016.

A listserv was created from email addresses publicly available on the Department of Family and Protective Services website using Child Care Licensing Search for Child Care Center or Home list in January 2016. There were a total of 7,542 public email addresses available, and after removing duplicates, the listserv totaled 6,561 unique email addresses. The emails on the listserv represented 41.6% of the 15,789 childcare facilities listed, some of which were duplicates.

The survey was conducted using the online software, Survey Monkey. The survey versions were available in English and Spanish. The survey was sent to the listserv on February 2, 2016 and remained open through February 26, 2016. DSHS sent reminders to complete the survey on February 9, 16, and 23, 2016. Council members other than DSHS also sent reminders to complete the survey to their childcare facilities, some of which were not included on the listserv because they chose not to make their email addresses public. The reminders increased awareness of the survey and 7 email addresses were added to the listserv per their request to participate in the survey. The survey and reminders were sent to a total of 6,568 email addresses. The instructions stated that the survey should be completed by a person responsible for overseeing the physical activity (indoor and outdoor play) of the children in care (e.g., day care home provider, center teacher, center director, or administrator).

To calculate response percentages, missing data were excluded from the denominator. Additionally, when respondents had the option to select multiple responses for a specific question the sum of percentages may add to more than 100. The survey was the first statewide survey of physical activity-related policies and practices in the early childcare setting in Texas and will serve as a baseline. The results presented in this data report are based on 827 complete or partially complete responses to the online survey in February 2016.

Table 1. Respondents by current position, Texas, 2016

| Current Position | Count | Percentage |
|-------------------------|-------|------------|
| Total | 827 | 100.0 |
| Center Director | 590 | 71.3 |
| Childcare Home Provider | 158 | 19.1 |
| Other | 83 | 10.0 |
| Principal | 38 | 4.6 |
| Center Teacher | 33 | 4.0 |

Note: Multiple responses possible.

Table 1a. Specification if "Other" current position selected, Texas, 2016

| Current Position-Other | Count | Percentage |
|---------------------------------|-------|------------|
| Total | 83 | 100.0 |
| Owner | 22 | 26.5 |
| Assistant Director | 12 | 14.5 |
| Administrator | 8 | 9.6 |
| Director | 8 | 9.6 |
| Health and Nutrition Specialist | 2 | 2.4 |
| Manager | 2 | 2.4 |

| | | |
|----------------------------------|---|-----|
| Assistant Principal | 1 | 1.2 |
| Association Director | 1 | 1.2 |
| Center Coordinator | 1 | 1.2 |
| Center Manager | 1 | 1.2 |
| CEO/HS/EHS Director | 1 | 1.2 |
| Compliance Specialist | 1 | 1.2 |
| Designee | 1 | 1.2 |
| Dir of Child & Family Services | 1 | 1.2 |
| District Manager | 1 | 1.2 |
| Evening care coordinator | 1 | 1.2 |
| Facilitator for Center | 1 | 1.2 |
| For After School Programs | 1 | 1.2 |
| Health Specialist | 1 | 1.2 |
| Health/Mental Health Coordinator | 1 | 1.2 |
| Home day care owner | 1 | 1.2 |
| License child care home | 1 | 1.2 |
| Mentor Teacher | 1 | 1.2 |
| Nutrition Director | 1 | 1.2 |
| Operation Manager | 1 | 1.2 |
| Operator | 1 | 1.2 |
| Preschool program 3-5years | 1 | 1.2 |
| Program Officer | 1 | 1.2 |
| Program Specialist | 1 | 1.2 |
| Registered family home provider | 1 | 1.2 |
| Registrar | 1 | 1.2 |
| Service coordinator | 1 | 1.2 |
| Trainer TECPDS | 1 | 1.2 |
| Training Coordinator | 1 | 1.2 |

Table 2. Facility type, Texas, 2016

| Facility | Count | Percentage |
|----------------------------|-------|------------|
| Total | 864 | 100.0 |
| Childcare Center | 635 | 73.5 |
| Childcare Home | 167 | 19.3 |
| Early Head Start | 28 | 3.2 |
| Head Start | 26 | 3.0 |
| State-funded Pre-K Program | 8 | 0.9 |

Note: Multiple responses possible.

Table 3. Respondent tenure at their current facility, Texas, 2016

| Years Worked | Count | Percentage |
|------------------|-------|------------|
| Total | 827 | 100 |
| Less than I year | 60 | 7.3 |

| | | |
|--------------------|-----|------|
| 1 year | 27 | 3.3 |
| 2-5 years | 180 | 21.8 |
| 6-10 years | 154 | 18.6 |
| More than 10 years | 406 | 49.1 |

Interpretations for Tables 1-3:

- The most common response to the question, “What is your current position?” was “Center Director,” which was selected by 71.3% of survey respondents (Table 1).
- Among survey respondents choosing “other” as their current position, approximately 26.8% reported that they were the owner (Table 1a).
- Nearly 3 in 4 respondents reported that the facility where they currently work is a childcare center (73.5%) (Table 2).
- Nearly half of survey respondents reported working more than 10 years at their current facility (49.1%) (Table 3).

Table 4: Children currently enrolled in a facility by age group, Texas, 2016

| Age Group | Number Enrolled | | | | | | | Total |
|--------------------------------|-----------------|----------------|----------------|--------------|---------------|---------------|----------------|-------------------|
| | 0 | 1-10 | 11-20 | 21-30 | 31-40 | 40-50 | 51+ | |
| Infants (0-12 months) | 37.0% (306) | 46.6% (385) | 10.3% (85) | 1.3% (11) | 0.4% (3) | -- (0) | 1.0% (8) | 3.9% (1,034) |
| Toddlers (13-23 months) | 18.0% (149) | 43.4% (359) | 23.2% (192) | 7.3% (60) | 2.5% (21) | 0.8% (7) | 1.9% (16) | 8.3% (2,195) |
| Preschool (age 2-5 years) | 1.8% (15) | 21.5% (178) | 10.0% (83) | 9.3% (77) | 11.1% (92) | 10.6% (88) | 33.4% (276) | 64.0% (16,888) |
| School age (6 years and up) | 38.3% (317) | 23.0% (190) | 12.3% (102) | 8.1% (67) | 4.8% (40) | 3.1% (26) | 5.3% (44) | 23.8% (6,273) |

Table 5. Facility participation in programs that address physical activity, Texas, 2016

| Programs that address physical activity | Count | Percentage |
|--|-------|------------|
| Total | 827 | 100 |
| None of the above | 555 | 67.1 |
| Other | 167 | 20.2 |
| Texas Rising Star Program | 160 | 19.3 |
| National Association for the Education of the Young Child (NAEYC) | 101 | 12.2 |
| I Am Moving, I Am Learning | 34 | 4.1 |
| National Accreditation Commission (NAC) for Early Care and Education | 24 | 2.9 |
| Programs | | |
| Let's Move Child Care | 17 | 2.1 |
| National Association of Family Child Care (NAFCC) | 12 | 1.5 |
| Coordinated Approach to Child Health (CATCH) | 12 | 1.5 |
| National Early Childhood Program Accreditation (NECPA) | 6 | 0.7 |
| All of the above | 0 | 0 |

Note: Multiple responses possible.

Interpretations for Tables 4-5:

- Data from the 2016 Early Childhood Physical Activity Survey showed that 64.0% of children currently enrolled in the facilities were aged 2-5 years (Table 4).
- Among all facilities that responded, 37.0% reported that no infants were enrolled at their facility, 46.6% reported that between 1 and 10 infants were currently enrolled at their facility, and 10.3% reported that between 11 and 20 infants were currently enrolled (Table 4).
- Among all facilities that responded, 43.4% reported that between 1 and 10 toddlers were currently enrolled at their facility, 23.2% reported that between 11 and 20 toddlers were currently enrolled, and 18.0% reported that no toddlers were currently enrolled (Table 4).
- Among all facilities that responded, 33.4% reported that 51 or more preschoolers were currently enrolled at their facility, 21.5% responded that between 1 and 10 preschoolers were currently enrolled, and 11.1% reported that between 31 and 40 preschoolers were currently enrolled (Table 4).
- Among all facilities that responded, 38.3% reported that no school-aged children were currently enrolled at their facility, 23.0% reported that between 1 and 10 school-age children were currently enrolled, and 12.3% reported that between 11 and 20 school-age children were currently enrolled.
- Nearly 1 in 5 (19.3%) survey respondents reported participating in the Texas Rising Star Program among programs that address physical activity (Table 5).

Table 6. Amount of time provided to preschool children* for indoor and outdoor physical activity each day, Texas, 2016

| Amount of time | Count | Percentage |
|---|-------|------------|
| Total | 647 | 100 |
| Less than 60 minutes (Half-day: less than 30 minutes) | 60 | 9.3 |
| 60 – 89 minutes (Half-day: 30 – 44 minutes) | 296 | 45.7 |
| 90 – 119 minutes (Half-day: 45 – 59 minutes) | 139 | 21.5 |
| 120 minutes or more (Half-day: 60 minutes or more) | 152 | 23.5 |

*Age 2-5 years

Definition: Physical activity is any movement of the body that increases heart rate and breathing above what it would be if a child was sitting or resting. Examples include: walking, running, crawling, climbing, jumping and dancing.

Table 7. Adult-led structured physical activity provided to preschool* children, Texas, 2016

| Amount of time | Count | Percentage |
|---|-------|------------|
| Total | 648 | 100 |
| Less than 30 minutes (Half-day: less than 10 minutes) | 272 | 42.0 |
| 30-44 minutes (Half-day: 10 – 19 minutes) | 105 | 16.2 |
| 45 – 59 minutes (Half-day: 20 – 29 minutes) | 102 | 15.7 |
| 60 minutes or more (Half-day: 30 minutes or more) | 169 | 26.1 |

*Age 2-5 years

Definition: Adult-led activities and lessons can be led by teachers or outside presenters. Examples

include dancing, music and movement, motor development lessons, physically active games, and tumbling. The total amount of adult-led activity time may include multiple short activities added up over the course of the day.

Table 8. Time provided to toddlers* for indoor and outdoor physical activity each day, Texas, 2016

| Amount of time | Count | Percentage |
|---|-------|------------|
| Total | 553 | 100 |
| Less than 60 minutes (Half-day: less than 15 minutes) | 91 | 16.5 |
| 60 – 74 minutes (Half-day: 15 – 29 minutes) | 219 | 39.6 |
| 75 – 89 minutes (Half-day: 30 –44 minutes) | 86 | 15.6 |
| 90 minutes or more (Half-day: 45 minutes or more) | 157 | 28.4 |

*Age 13-23 months

Interpretations for Tables 6-8:

- Nearly half (45.7%) of survey respondents reported that their full-day programs provide preschool children, aged 2-5 years, with 60-89 minutes (half-day: 30-44 minutes) of indoor and outdoor physical activity each day (Table 6). Physical activity is defined as any movement of the body that increases heart rate and breathing above what it would be if a child was sitting or resting. Examples include: walking, running, crawling, climbing, jumping and dancing.
- About 2 in 5 (42.0%) of survey respondents reported that their full-day program provided 30-44 minutes (half-day: 10-19 minutes) of adult-led (structured) physical activity to preschool children (Table 7). Adult-led activities and lessons can be led by teachers or outside presenters. Examples include dancing, music and movement, motor development lessons, physically active games, and tumbling. The total amount of adult-led activity time may include multiple short activities added up over the course of the day.
- About 2 in 5 (39.6%) survey respondents reported that their full-day program provided toddlers, aged 13-23 months, with 60 - 74 minutes (half-day: 15–29 minutes) of indoor and outdoor physical activity each day (Table 8).

Table 9. Participation of teachers or caregivers during unstructured physical activity playtime, Texas, 2016

| Level of participation of teachers or caregivers | Count | Percentage |
|--|-------|------------|
| Total | 650 | 100 |
| Rarely or never join children in active play (mostly sit or stand) | 16 | 2.5 |
| Sometimes join children in active play | 228 | 35.1 |
| Often or always join children in active play | 178 | 27.4 |
| Often or always join children in active play and make positive statements about the activity | 228 | 35.1 |

Definition: Unstructured physical activity is the active free play that children do when they are free to play on their own. Free play can include winging, sliding, climbing pushing, pulling, riding, or playing chase. In free play, the adult watches and encourages active play but does not lead the children’s play.

Table 10. Tummy time offered to non-crawling infants*, Texas, 2016

| Amount of tummy time | Count | Percentage |
|----------------------|-------|------------|
|----------------------|-------|------------|

| | | |
|---|-----|-------|
| Total | 456 | 100.0 |
| 1 time per day or less (Half-day: 1 time every other day) | 11 | 2.4 |
| 2 times per day (Half-day: 1 time per day) | 85 | 18.6 |
| 3 times per day (Half-day: 2 times per day) | 128 | 28.1 |
| 4 times per day or more (Half-day: more than 2 times per day) | 232 | 50.9 |

*Age 0-12 months

Definition: Tummy time is supervised time when an infant is awake and alert, lying on her/his belly. Opportunities for tummy time should last as long as possible to help infants learn to enjoy it and build their strength. For infants who are not used to it or do not enjoy it, each period of tummy time can start at 1 – 2 minutes, and build up to 5-10 minutes over time.

Table 11. Frequency of teachers offering developmentally appropriate portable play equipment to infants* during tummy time and other indoor activities, , Texas, 2016

| Frequency | Count | Percentage |
|-----------------|-------|------------|
| Total | 474 | 100.0 |
| Rarely or never | 5 | 1.1 |
| Sometimes | 14 | 3.0 |
| Often | 116 | 24.5 |
| Always | 339 | 71.5 |

*Age 0-12 months

Definition: Portable play equipment for infants includes balls, soft blocks, mirrors to view self and rattles.

Interpretations for Tables 9-11:

- During unstructured physical activity playtime, 35.1% of respondents reported that teachers or caregivers sometimes join children in active play and another 35.1% often or always join children in active play and make positive statements about the activity (Table 9). Unstructured physical activity is the active free play that children do when they are free to play on their own. Free play can include winging, sliding, climbing, pushing, pulling, riding, or playing chase. In free play, the adult watches and encourages active play but does not lead the children's play.
- About half (50.9%) of survey respondents reported that they offer “tummy time” 4 times per day or more (Half-day: more than 2 times per day) to non-crawling infants, aged 0-12 months (Table 10). Tummy time is supervised time when an infant is awake and alert, lying on her/his belly. Opportunities for tummy time should last as long as possible to help infants learn to enjoy it and build their strength. For infants who are not used to it or do not enjoy it, each period of tummy time can start at 1 - 2 minutes, and build up to 5-10 minutes over time.
- Nearly 3 in 4 (71.5%) survey respondents reported that teachers always offer developmentally appropriate portable play equipment to infants during tummy time and other indoor activities (Table 11). Portable play equipment for infants includes balls, soft blocks, mirrors to view self and rattles.

Table 12. Longest amount of time infants* are expected to remain seated at any one time outside of nap and meal times, Texas, 2016

| Time | Count | Percentage |
|--|-------|------------|
| Total | 457 | 100.0 |
| 30 minutes or more | 23 | 5.0 |
| 15-29 minutes | 181 | 39.6 |
| 1-14 minutes | 187 | 40.9 |
| Infants are never placed in seats, swings, or ExcerSaucers | 66 | 14.4 |

*Age 0-12 months

Table 13. Longest amount of time preschool* children and toddlers* are expected to remain seated at any one time outside of nap and meal times, Texas, 2016

| Time | Count | Percentage |
|----------------------|-------|------------|
| Total | 629 | 100.0 |
| 30 minutes or more | 16 | 2.5 |
| 20-29 minutes | 93 | 14.8 |
| 15-19 minutes | 198 | 31.5 |
| Less than 15 minutes | 322 | 51.2 |

*Preschool are children aged 2-5 years; toddlers are aged 13-23 months.

Interpretations for Tables 12-13:

- About 2 in 5 (40.9%) of respondents reported that the longest time that infants, age 0-12 months, are expected to remain seated at any one time outside of nap and meal times was 1 to 14 minutes; about 1 in 7 (14.4%) respondents reported that infants are never placed in seats, swings, or ExcerSaucers (Table 12).
- About half (51.2%) of respondents reported that preschool children and toddlers are expected to remain seated less than 15 minutes at any one time outside of nap and meal times; about a third (31.5%) reported that preschool children, age 2-5 years, and toddlers, age 13-23 months, are expected to remain seated 15-19 minutes at any one time outside of nap and meal times (Table 13).

Table 14: Minutes of screen time allowed per week for children 2 years of age and older, Texas, 2016

| Minutes | Count | Percentage |
|--------------------------|-------|------------|
| Educational Screen Time | 594 | 100.0 |
| 0 | 195 | 32.8 |
| 1 - 15 | 79 | 13.3 |
| 16 - 30 | 134 | 22.6 |
| 31 - 60 | 80 | 13.5 |
| 61 + | 106 | 17.8 |
| Recreational Screen Time | 575 | 100.0 |

| | | |
|---|------------|--------------|
| 0 | 303 | 52.7 |
| 1 - 15 | 57 | 9.9 |
| 16 - 30 | 84 | 14.6 |
| 31 - 60 | 50 | 8.7 |
| 61 + | 81 | 14.1 |
| Educational & Recreational Screen Time | 561 | 100.0 |
| 0 | 177 | 31.6 |
| 1 - 15 | 52 | 9.3 |
| 16 - 30 | 70 | 12.5 |
| 31 - 60 | 94 | 16.8 |
| 61 + | 168 | 29.9 |

Definition: Screen time includes any time spent watching shows or playing games (including active video games) on a screen. Screens can include televisions; desktop, laptop, or tablet computers; or smart phones.

Table 15: Minutes of screen time allowed per week for children 2 years of age and older, Texas, 2016

| | Educational Screen Time | Recreational Screen Time | Educational & Recreational Screen Time |
|-----------------------------|-------------------------|--------------------------|--|
| Total number of respondents | 594 | 575 | 561 |
| Mean (minutes) | 44.5 | 32.1 | 74.2 |
| Median (minutes) | 20.0 | 0.0 | 30.0 |

Table 16: Minutes of screen time allowed per week for children under 2 years of age, Texas, 2016

| Minutes | Count | Percentage |
|---|------------|--------------|
| Educational Screen Time | 540 | 100.0 |
| 0 | 411 | 76.1 |
| 1 - 15 | 43 | 8.0 |
| 16 - 30 | 37 | 6.9 |
| 31 - 60 | 17 | 3.1 |
| 61 + | 32 | 5.9 |
| Recreational Screen Time | 519 | 100.0 |
| 0 | 425 | 81.9 |
| 1 - 15 | 39 | 7.5 |
| 16 - 30 | 25 | 4.8 |
| 31 - 60 | 8 | 1.5 |
| 61 + | 22 | 4.2 |
| Educational & Recreational Screen Time | 513 | 100.0 |
| 0 | 390 | 76.0 |
| 1 - 15 | 28 | 5.5 |
| 16 - 30 | 23 | 4.5 |

| | | |
|---------|----|-----|
| 31 - 60 | 31 | 6.0 |
| 61 + | 41 | 8.0 |

Definition: Screen time includes any time spent watching shows or playing games (including active video games) on a screen. Screens can include televisions; desktop, laptop, or tablet computers; or smart phones.

Table 17: Minutes of screen time allowed per week for children under 2 years of age, Texas, 2016

| | Educational Screen Time | Recreational Screen Time | Educational & Recreational Screen Time |
|-----------------------------|-------------------------|--------------------------|--|
| Total number of respondents | 540 | 519 | 513 |
| Mean (minutes) | 12.4 | 8.8 | 20.3 |
| Median (minutes) | 0.0 | 0.0 | 0.0 |

Interpretations for Tables 14-17:

- Nearly 1 in 5 (17.8%) respondents allow 61 minutes or more of educational screen time per week for children 2 years of age and older; a third (32.8%) of respondents did not allow any educational screen time for children 2 years of age and older (Table 14).
- 1 in 7 (14.1%) respondents allow 61 minutes or more of recreational screen time per week for children 2 of years of age and older; more than half (52.7%) of respondents did not allow any recreational screen time for children 2 years of age and older (Table 14).
- About a third (29.9%) respondents allow 61 minutes or more of combined educational and recreational screen time per week for children 2 years of age and older; and nearly a third (31.6%) did not allow any educational or recreational screen time for children 2 years of age and older (Table 14).
- The average amount of weekly educational screen time allowed for children 2 years of age and older was 44.5 minutes; for recreational screen time the weekly average was 32.1 minutes. The average amount of combined educational and recreational screen time for children 2 years of age and older was 74.2 minutes per week (Table 15).
- Nearly 1 in 13 (8.0%) respondents allow 1-15 minutes of educational screen time per week for children under 2 years of age; more than 3 in 4 (76.1%) respondents did not allow any educational screen time for children under 2 years of age (Table 16).
- Fewer than 1 in 10 (8.0%) respondents allow 1-15 minutes of recreational screen time per week for children under 2 years of age; more than 4 in 5 (81.9%) respondents did not allow any recreational screen time for children under 2 years of age (Table 16).
- Almost 1 in 18 (5.5%) respondents allow 1-15 minutes of combined educational and recreational screen time per week for children under 2 years of age; more than 3 in 4 (76.0%) did not allow any educational or recreational screen time for children under 2 years of age (Table 16).
- The average amount of weekly educational screen time allowed for children under 2 years of age was 12.4 minutes; for recreational screen time the weekly average was 8.8

minutes. The average amount of combined educational and recreational screen time allowed for children under 2 years of age was 20.3 minutes per week (Table 17).

Table 18. Frequency of staff members restricting play time for children who misbehave, Texas, 2016

| Frequency | Count | Percentage |
|--------------------|-------|------------|
| Total | 639 | 100.0 |
| Never | 471 | 73.7 |
| Some staff members | 135 | 21.1 |
| Most staff members | 12 | 1.9 |
| All staff members | 21 | 3.3 |

Table 19. Frequency of outdoor active free play provided for all children (toddlers and preschool), Texas, 2016

| Frequency | Count | Percentage |
|-------------------------|-------|------------|
| Total | 645 | 100.0 |
| 1 time per week or less | 1 | 0.2 |
| 4 times per week | 43 | 6.7 |
| 1 time per day | 120 | 18.6 |
| 2 or more times per day | 481 | 74.6 |

*Toddlers are aged 13-23 months and preschool children are aged 2-5 years.

Table 20. Frequency of outdoor active free play provided for all children (toddlers and preschool) by facility type, Texas, 2016

| Frequency | Childcare Center | Childcare Home | Early Head Start | Head Start | State-funded Pre-K Program |
|-----------------------------|------------------|----------------|------------------|------------|----------------------------|
| Total number of respondents | 507 | 121 | 19 | 19 | 6 |
| 1 time per week or less | 0.2% (1) | -- (0) | -- (0) | -- (0) | -- (0) |
| 4 times per week | 5.7% (29) | 9.1% (11) | 10.5% (2) | 21.1% (4) | -- (0) |
| 1 time per day | 16.2% (82) | 21.5% (26) | 36.8% (7) | 52.6% (10) | 16.7% (1) |
| 2 or more times per day | 77.9% (395) | 69.4% (84) | 52.6% (10) | 26.3% (5) | 83.3% (5) |

*Preschool are children aged 2-5 years and toddlers are aged 13-23 months.

-- indicates percent not calculated because count was zero.

Note: Multiple responses for possible for facility type.

Table 21. Frequency of outdoor active free play provided for all children (toddlers and preschool)* by program, Texas, 2016

| Program | Total number of respondents within each type of program | 1 time per week or less | 4 times per week | 1 time per day | 2 or more times per day |
|---------|---|-------------------------|------------------|----------------|-------------------------|
| | | | | | |

| | | | | | |
|---|-----|----------|-----------|------------|-------------|
| Texas Rising Star Program | 135 | 0.7% (1) | 7.4% (10) | 7.4% (10) | 84.4% (114) |
| National Association for the Education of the Young Child (NAEYC) | 76 | -- (0) | 2.6% (2) | 11.8% (9) | 85.5% (65) |
| I Am Moving, I Am Learning | 25 | -- (0) | 12.0% (3) | 44.0% (11) | 44.0% (11) |
| National Accreditation Commission (NAC) for Early Care and Education Programs | 21 | 4.8% (1) | -- (0) | 9.5% (2) | 85.7% (18) |
| Let's Move Child Care | 15 | -- (0) | 6.7% (1) | 6.7% (1) | 86.7% (13) |
| Coordinated Approach to Child Health (CATCH) | 9 | -- (0) | 11.1% (1) | 11.1% (1) | 77.8% (7) |
| National Association of Family Child Care (NAFCC) | 6 | -- (0) | 16.7% (1) | 33.3% (2) | 50.0% (3) |
| National Early Childhood Program Accreditation (NECPA) | 4 | -- (0) | 25.0% (1) | 25.0% (1) | 50.0% (2) |
| None of the above | 433 | -- (0) | 6.7% (29) | 21.9% (95) | 71.4% (309) |

*Preschool are children aged 2-5 years and toddlers are aged 13-23 months.

-- indicates percent not calculated because count was zero.

Note: Multiple responses for possible for program participation.

Interpretations for Tables 18-21:

- 3 in 4 (73.7%) survey respondents reported that staff members never restrict play time for children who misbehave (Table 18).
- 3 in 4 (74.6%) survey respondents reported that outdoor active free play was provided 2 or more times per day for toddlers and preschool aged children (Table 19).
- 77.9% of child care centers and 69.4% of childcare homes reported providing outdoor active free play for all children 2 or more times per day (Table 20).
- 84.4% of facilities that use the Texas Rising Star Program and 84.6% of facilities that use the National Association for the Education of the Young Child (NAEYC) provide outdoor active free play 2 or more times per day for toddlers and preschool aged children (Table 21).

Table 22: Frequency that outdoor learning environment and activities are linked to reinforce indoor learning, Texas, 2016

| Frequency | Count | Percentage |
|-----------|-------|------------|
| Total | 643 | 100.0 |
| Never | 13 | 2.0 |
| Rarely | 37 | 5.8 |
| Sometimes | 305 | 47.4 |
| Often | 288 | 44.8 |

Table 23: Frequency that outdoor learning environment and activities are linked to reinforce indoor learning by facility type, Texas, 2016

| Frequency | Childcare Center | Childcare Home | Early Head Start | Head Start | State-funded Pre-K Program |
|-----------|------------------|----------------|------------------|------------|----------------------------|
| Total | 505 | 121 | 19 | 19 | 5 |
| Never | 1.6% (8) | 4.1% (5) | 10.5% (2) | -- (0) | -- (0) |
| Rarely | 6.3% (32) | 4.1% (5) | -- (0) | -- (0) | -- (0) |
| Sometimes | 49.9% (252) | 42.1% (51) | 42.1% (8) | 15.8% (3) | 20.0% (1) |
| Often | 42.2% (213) | 49.6% (60) | 47.4% (9) | 84.2% (16) | 80.0% (4) |

-- indicates percent not calculated because count was zero.

Note: Multiple responses possible for facility type.

Table 24: Facility use of best practice indicators for a model outdoor learning environment, Texas, 2016

| Indicators | Count | Percentage |
|---|-------|------------|
| Total | 649 | 100.0 |
| There are sufficient types of physical activities, including gross motor activities supported by the outdoor learning environment (such as running, jumping on/off, crawling through, rolling, swinging, throwing, balancing, climbing). | 567 | 87.4 |
| There is an open, grassy area for games and events for children. | 503 | 77.5 |
| There are sufficient different types of wheeled toys, portable play equipment (such as balls, blocks, jump rope), and play materials (such as dress-up clothes) available to stimulate creative play and children are allowed to play freely with them. | 495 | 76.3 |
| There are sufficient (man-made) shade structures, in addition to trees, to provide children with protection from the sunlight. | 442 | 68.1 |
| There are sufficient different types of natural, loose materials (such as leaves, sticks, gravel, seeds) present and children are allowed to play freely with them. | 437 | 67.5 |
| There are sufficient trees providing cover for about 1/3rd of the outdoor area. | 340 | 52.4 |
| There are looping, curvy primary pathways provided for circulation and available for children to use with wheeled toys. | 270 | 41.6 |
| There is an outdoor classroom/ program base/storage available for tools, equipment and materials for outdoor learning. | 249 | 38.4 |
| There are at least 10 outdoor play and learning settings for different activities. | 244 | 37.6 |
| There is a designated vegetable garden with sufficient produce for repeated opportunities for snacking and/or meals during growing seasons. | 126 | 19.4 |
| There are sufficient shrubs (about 3 for every 100 sq. ft.), including at least ¼ fruiting shrubs and vines. | 68 | 10.5 |
| At least ¼ of trees are edible fruit or nut species. | 58 | 8.9 |
| None of the above | 7 | 1.1 |
| All of the above | 4 | 0.6 |

Note: Multiple responses possible.

Table 25: Total number of best practice indicators for a model outdoor learning environment used by facilities, Texas, 2016

| Number of Indicators | Count | Percentage |
|----------------------|-------|------------|
| Total | 649 | 100.0 |
| 0 | 7 | 1.1 |
| 1 | 25 | 3.9 |
| 2 | 28 | 4.3 |
| 3 | 65 | 10.0 |
| 4 | 79 | 12.2 |
| 5 | 94 | 14.5 |
| 6 | 79 | 12.2 |
| 7 | 83 | 12.8 |
| 8 | 91 | 14.0 |
| 9 | 44 | 6.8 |
| 10 | 40 | 6.2 |
| 11 | 10 | 1.5 |
| 12 | 4 | 0.6 |

Table 26: Facility use of best practice indicators for a model outdoor learning environment by facility type, Texas, 2016

| Indicators | Childcare Center | Childcare Home | Early Head Start | Head Start | State-funded Pre-K Program |
|---|------------------|----------------|------------------|------------|----------------------------|
| Total number of respondents | 510 | 122 | 19 | 19 | 6 |
| There are sufficient types of physical activities, including gross motor activities supported by the outdoor learning environment (such as running, jumping on/off, crawling through, rolling, swinging, throwing, balancing, climbing). | 88.0% (449) | 85.2% (104) | 84.2% (16) | 84.2% (16) | 83.3% (5) |
| There is an open, grassy area for games and events for children. | 75.3% (384) | 86.1% (105) | 73.7% (14) | 84.2% (16) | 100.0% (6) |
| There are sufficient different types of wheeled toys, portable play equipment (such as balls, blocks, jump rope), and play materials (such as dress-up clothes) available to stimulate creative play and children are allowed to play freely with them. | 73.9% (377) | 86.1% (105) | 73.7% (14) | 84.2% (16) | 66.7% (4) |
| There are sufficient different types of natural, loose materials (such as leaves, sticks, gravel, seeds) present and children are allowed to play freely with them. | 70.0% (357) | 61.5% (75) | 52.6% (10) | 36.8% (7) | 16.7% (1) |
| There are sufficient (man-made) shade structures, in addition to trees, to provide children with protection from the sunlight. | 67.5% (344) | 68.9% (84) | 78.9% (15) | 89.5% (17) | 66.7% (4) |
| There are sufficient trees providing cover for about 1/3rd of the outdoor area. | 52.4% (267) | 56.6% (69) | 47.4% (9) | 36.8% (7) | 33.3% (2) |
| There are looping, curvy primary pathways provided for circulation and available for children to use with wheeled toys. | 42.4% (216) | 33.6% (41) | 63.2% (12) | 68.4% (13) | 50.0% (3) |
| There are at least 10 outdoor play and learning settings for different activities. | 39.4% (201) | 32.8% (40) | 42.1% (8) | 36.8% (7) | 50.0% (3) |
| There is an outdoor classroom/ program base/storage available for tools, equipment and materials for outdoor learning. | 39.4% (201) | 32.0% (39) | 52.6% (10) | 52.6% (10) | 33.3% (2) |
| There is a designated vegetable garden with sufficient produce for repeated opportunities for snacking and/or meals during growing seasons. | 18.6% (95) | 23.0% (28) | 21.1% (4) | 26.3% (5) | 16.7% (1) |
| There are sufficient shrubs (about 3 for every 100 sq. ft.), including at least ¼ fruiting shrubs and vines. | 9.8% (50) | 13.1% (16) | 5.3% (1) | 10.5% (2) | -- (0) |
| At least ¼ of trees are edible fruit or nut species. | 7.6% (39) | 15.6% (19) | 10.5% (2) | -- (0) | -- (0) |
| None of the above | 1.0% (5) | 1.6% (2) | -- (0) | -- (0) | -- (0) |

All of the above 0.6% (3) 0.8% (1) -- (0) -- (0) -- (0)

-- indicates percent not calculated because count was zero.

Table 27: Facility use of best practice indicators for a model outdoor learning environment, by program participation, Texas, 2016

| Indicators | TRS | NAEYC | I Am Moving, I Am Learning | NAC for ECEP | Let's Move Child Care | NAF CC | CAT CH | NEC PA | Other | None of the above |
|---|----------------|---------------|----------------------------|---------------|-----------------------|--------------|--------------|--------------|----------------|-------------------|
| Total number of respondents | 160 | 101 | 34 | 24 | 17 | 12 | 12 | 6 | 167 | 555 |
| There are sufficient types of physical activities, including gross motor activities supported by the outdoor learning environment (such as running, jumping on/off, crawling through, rolling, swinging, throwing, balancing, climbing). | 73.8% (118) | 69.3% (70) | 64.7% (22) | 79.2% (19) | 88.2% (15) | 41.7% (5) | 50.0% (6) | 66.7%(4) | 37.1% (35) | 67.9% (377) |
| There are sufficient different types of wheeled toys, portable play equipment (such as balls, blocks, jump rope), and play materials (such as dress-up clothes) available to stimulate creative play and children are allowed to play freely with them. | 66.9% (107) | 64.4% (65) | 61.8% (21) | 70.8%(1 7) | 82.4% (14) | 50.0% (6) | 58.3% (7) | 66.7% (4) | 65.3% (109) | 58.2% (323) |
| There is an open, grassy area for games and | 62.5% (100) | 61.4% (62) | 58.8% (20) | 62.5% (15) | 76.5% (13) | 50.0% (6) | 58.3% (7) | 66.7%(4) | 67.1% (112) | 61.3% (340) |

Table 27: Facility use of best practice indicators for a model outdoor learning environment, by program participation, Texas, 2016

| Indicators | TRS | NAEYC | I Am Moving, I Am Learning | NAC for ECEP | Let's Move Child Care | NAF CC | CAT CH | NEC PA | Other | None of the above |
|---|---------------|---------------|----------------------------|---------------|-----------------------|--------------|--------------|--------------|----------------|-------------------|
| Total number of respondents | 160 | 101 | 34 | 24 | 17 | 12 | 12 | 6 | 167 | 555 |
| events for children. | | | | | | | | | | |
| There are sufficient different types of natural, loose materials (such as leaves, sticks, gravel, seeds) present and children are allowed to play freely with them. | 60.6% (97) | 54.5% (55) | 35.3% (12) | 62.5% (15) | 41.2% (7) | 33.3% (4) | 25.0% (3) | 50.0% (3) | 60.5% (101) | 51.9% (288) |
| There are sufficient (man-made) shade structures, in addition to trees, to provide children with protection from the sunlight. | 56.3% (90) | 61.4% (62) | 58.8% (20) | 62.5% (15) | 82.4% (14) | 41.7% (5) | 41.7% (5) | 50.0% (3) | 59.3% (99) | 51.4% (285) |
| There is an outdoor classroom/ program base/storage available for tools, equipment and materials for outdoor learning. | 48.1% (77) | 49.5% (50) | 44.1% (15) | 41.7% (10) | 41.2% (7) | 25.0% (3) | 16.7% (2) | 50.0% (3) | 34.1% (57) | 23.1% (128) |
| There are sufficient trees providing cover for about 1/3rd of the outdoor area. | 45.0% (72) | 49.5% (50) | 29.4% (10) | 50.0% (12) | 41.2% (7) | 25.0% (3) | 33.3% (4) | 33.3% (2) | 43.7% (73) | 40.4% (224) |
| There are looping, curvy primary pathways provided for circulation and available for | 41.9% (67) | 50.5% (51) | 35.3% (12) | 41.7% (10) | 35.3% (6) | 25.0% (3) | 16.7% (2) | 33.3% (2) | 37.1% (62) | 29.2% (162) |

Table 27: Facility use of best practice indicators for a model outdoor learning environment, by program participation, Texas, 2016

| Indicators | TRS | NAEYC C | I Am Moving, I Am Learning | NAC for ECEP | Let's Move Child Care | NAF CC | CAT CH | NEC PA | Other | None of the above |
|--|---------------|---------------|-------------------------------------|-----------------|--------------------------------|--------------|-----------|--------------|---------------|----------------------|
| Total number of respondents | 160 | 101 | 34 | 24 | 17 | 12 | 12 | 6 | 167 | 555 |
| children to use with wheeled toys. | | | | | | | | | | |
| There are at least 10 outdoor play and learning settings for different activities. | 38.1% (61) | 37.6% (38) | 29.4% (10) | 33.3% (8) | 52.9% (9) | 16.7% (2) | -- (0) | 16.7% (1) | 35.9% (60) | 27.0% (150) |
| There are sufficient shrubs (about 3 for every 100 sq. ft.), including at least ¼ fruiting shrubs and vines. | 6.3%(10) | 13.9% (14) | 5.9%(2) | 12.5% (3) | -- (0) | 16.7% (2) | -- (0) | -- (0) | 7.8% (13) | 8.1% (45) |
| At least ¼ of trees are edible fruit or nut species. | 8.8% (14) | 8.9% (9) | 2.9%(1) | 4.2% (1) | 11.8% (2) | 16.7% (2) | -- (0) | 16.7% (1) | 0.6% (1) | 6.7% (37) |
| None of the above | -- (0) | -- (0) | -- (0) | -- (0) | -- (0) | -- (0) | -- (0) | -- (0) | -- (0) | -- (0) |

-- indicates percent not calculated because count was zero.

Note: Multiple responses possible for program participation and best practice indicators.

Abbreviations: TRS, Texas Rising Star Program; NAEYC, National Association for the Education of the Young Child; NAC for ECEP, National Accreditation Commission for Early Care and Education Programs; NAFCC, National Association of Family Child Care; CATCH, Coordinated Approach to Child Health; NECPA, National Early Childhood Program Accreditation.

Interpretations for Tables 22-27:

- Almost half (47.4%) of survey respondents reported that outdoor learning environment and activities are sometimes linked to enforce indoor learning; another 44.8% reported that this happens often (Table 22).
- Half (49.9%) of child care centers reported that outdoor learning environment and activities are sometimes linked to enforce indoor learning sometimes (Table 23).
- Nearly 9 in 10 (87.4%) survey respondents reported that their facility has sufficient types of physical activities, including gross motor activities supported by the outdoor learning environment (such as running, jumping on/off, crawling through, rolling, swinging, throwing, balancing, climbing) (Table 24).
- More than 3 in 4 (77.5%) survey respondents reported that their facility has an open, grassy area for games and events for children (Table 24).
- More than 3 in 4 (76.3%) survey respondents reported that their facility has sufficient different types of wheeled toys, portable play equipment (such as balls, blocks, jump rope), and play materials (such as dress-up clothes) available to stimulate creative play and children are allowed to play freely with them (Table 24).
- About 1 in 7 (14.5%) survey respondents reported that their facility includes five out of twelve outdoor learning environment indicators; about 1 in 7 (14.0%) have eight out of twelve outdoor learning environment indicators (Table 25).
- Out of all five facility types, Childcare Centers had the highest percent of respondents (88.0%) who said their facility has sufficient types of physical activities, including gross motor activities supported by the outdoor learning environment (Table 26).
- Out of all five facility types, State-funded Pre K Programs had the highest percent of respondents (100.0%) who said their facility has an open, grassy area for games and events for children (Table 26).
- Out of all five facility types, Childcare Homes had the highest percent of respondents (86.1%) who said their facility has sufficient different types of wheeled toys, portable play equipment , and play materials available to stimulate creative play and children are allowed to play freely with them (Table 26).
- Out of all five facility types, Head Start had the highest percent of respondents (89.5%) who said their facility has sufficient (man-made) shade structures, in addition to trees, to provide children with protection from the sunlight (Table 26).
- Out of all programs, almost 3 out of 4 respondents using Texas Rising Star said their facility has sufficient types of physical activities, including gross motor activities supported by the outdoor learning environment (such as running, jumping on/off, crawling through, rolling, swinging, throwing, balancing, climbing) (Table 27).

Table 28: Frequency that physical activity education is provided for children through a standardized curriculum, Texas, 2016

| Frequency | Count | Percentage |
|-------------------------|-------|------------|
| Total | 637 | 100.0 |
| Never | 89 | 14.0 |
| 1 time per month | 8 | 1.3 |
| 2-3 times per month | 50 | 7.8 |
| 1 or more time per week | 490 | 76.9 |

Definition: Standardized curriculum is the academic content of a child's day. Curriculum is an imperative, complex concept that includes a host of activities and learning experiences, that include daily activities -- circle time, song time, active play time, story time, craft time, etc. Standardized curriculums include but not limited to: Bank Street, Reggio Emilia, and High/Scope.

Table 29: Type of visible support for physical activity at facility, Texas, 2016

| Type | Count | Percentage |
|---|-------|------------|
| Total | 633 | 100.0 |
| No posters, pictures, or books about physical activity are displayed | 92 | 14.5 |
| A few posters, pictures, or books about physical activity displayed in a few rooms. | 216 | 35.2 |
| Posters, pictures, or books about physical activity are displayed in most rooms. | 179 | 29.2 |
| Posters, pictures, or books about physical activity are displayed in all rooms. | 146 | 23.8 |

Interpretations for Tables 28-29:

- 3 in 4 (76.9%) survey respondents reported that physical activity education for children was provided through standardized curriculum 1 or more time a week (Table 28).
- More than a third (35.2%) of survey respondents reported that their facility shows visible support for physical activity in the form of a few posters, pictures, or books about physical activity displayed in a few rooms (Table 29).

Table 30: Presence of written facility policy on physical activity or screen time, Texas, 2016

| Written policy | Count | Percentage |
|----------------|-------|------------|
| Total | 657 | 100.0 |
| Yes | 501 | 76.3 |
| No | 156 | 23.7 |

Definition: A written policy can include any written guidelines about your program's operations or expectations for teachers, staff, children, and families. Policies can be included in parent handbooks, staff manuals and other documents.

Table 31: Presence of written policy on physical activity or screen time, by facility type, Texas, 2016

| | Childcare Center | Childcare Home | Early Head Start | Head Start | State-funded Pre-K Program |
|-------|------------------|----------------|------------------|------------|----------------------------|
| Total | 517 | 123 | 19 | 19 | 6 |
| Yes | 81.4% (421) | 55.3% (68) | 89.5% (17) | 78.9% (15) | 83.3% (5) |
| No | 18.6% (96) | 44.7% (55) | 10.5% (2) | 21.1% (4) | 16.7% (1) |

Note: Multiple responses possible for facility type.

Table 32: Topics addressed by written policy on physical activity, Texas, 2016

| Topics | Count | Percentage |
|--|-------|------------|
| Total | 501 | 100.0 |
| Shoes and clothes that allow children and teachers/caregivers to actively participate in physical activity | 371 | 74.1 |
| Amount of time provided each day for indoor and outdoor physical activity | 351 | 70.1 |
| Unstructured (active free play) physical active play | 272 | 54.3 |
| Not withholding physical activity as punishment | 234 | 46.7 |
| Supporting physical activity (e.g. staff involved during active play time, visible display in classrooms and common areas) | 231 | 46.1 |
| Structured (adult-led active play) physical active play | 208 | 41.5 |
| Education for teachers/caregivers on children's physical activity | 195 | 38.9 |
| Limiting long periods of seated time for children | 163 | 32.5 |
| Education for children on physical activity | 155 | 30.9 |
| Education for families on children's physical activity | 78 | 15.6 |
| Policy does not include these topics | 10 | 2.0 |
| No written physical activity policy | 30 | 6.0 |
| All topics listed above are addressed in written physical activity policy | 0 | -- |

Definition: A written policy can include any written guidelines about your program's operations or expectations for teachers, staff, children, and families. Policies can be included in parent handbooks, staff manuals and other documents.

Note: Multiple responses possible.

Question only asked of respondents who said their facility has a written policy on physical activity or screen time.

-- indicates percent not calculated because count was zero.

Table 33: Topics addressed by written policy on screen time, Texas, 2016

| Topics | Count | Percentage |
|--------|-------|------------|
|--------|-------|------------|

| | | |
|--|-----|-------|
| Total | 501 | 100.0 |
| Amount of screen time allowed | 254 | 50.7 |
| Types of programming allowed | 193 | 38.5 |
| Appropriate supervision and use of screen time in classrooms | 177 | 35.3 |
| Not using screen time as a reward or to manage challenging behaviors | 83 | 16.6 |
| Professional development on screen time | 70 | 14.0 |
| Other | 48 | 9.6 |
| Education for families on screen time | 45 | 9.0 |
| Policy does not include these topics | 39 | 7.8 |
| No written screen time policy. | 97 | 19.4 |
| All topics listed above are addressed in written screen time policy | 15 | 3.0 |

Definition: Screen time includes any time spent watching shows or playing games (including active video games) on a screen. Screens can include televisions; desktop, laptop, or tablet computers; or smart phones.

Note: Multiple responses possible.

Question only asked of respondents who said their facility has a written policy on physical activity or screen time.

Table 34: Topics addressed by written policy on screen time, Texas Rising Star Program, Texas, 2016

| Topics | Count | Percentage |
|--|-------|------------|
| Total | 124 | 100.0 |
| Amount of screen time allowed | 74 | 59.7 |
| Types of programming allowed | 52 | 41.9 |
| Appropriate supervision and use of screen time in classrooms | 46 | 37.1 |
| Professional development on screen time | 26 | 21.0 |
| Not using screen time as a reward or to manage challenging behaviors | 22 | 17.7 |
| Education for families on screen time | 19 | 15.3 |
| Other | 19 | 15.3 |
| No written screen time policy | 15 | 12.1 |
| Policy does not include these topics | 11 | 8.9 |
| All topics listed above are addressed in written screen time policy | 8 | 6.5 |

Definition: Screen time includes any time spent watching shows or playing games (including active video games) on a screen. Screens can include televisions; desktop, laptop, or tablet computers; or smart phones.

Note: Multiple responses possible.

Question only asked of respondents who said their facility has a written policy on physical activity or screen time.

Interpretations for Tables 30-34:

- 3 in 4 (76.3%) survey respondents reported that their facility had a written policy on physical activity and/or screen time (Table 30).

- Most facilities have a written policy on physical activity or screen time. Childcare Homes had the lowest percent of respondents reporting having a written policy (55.3%) (Table 31).
- About 3 in 4 (74.1%) of survey respondents reported that their facility’s written policy on physical activity addressed shoes and clothes that allow children and teachers/caregivers to actively participate in physical activity; amount of time provided each day for indoor and outdoor physical activity (70.1%) was the second most common topic addressed by written policies (Table 32).
- Half (50.8%) of survey respondents reported that their facility’s written policy on screen time addressed amount of screen time allowed; nearly 2 in 5 (38.5%) reported that their policy addressed types of programming allowed (Table 33).
- Nearly 3 in 5 (59.7%) survey respondents participating in the Texas Rising Star Program reported that their facility’s written policy on screen time addressed amount of screen time allowed; more than 2 in 5 (41.9%) reported that their policy addressed types of programming allowed (Table 34).

Table 35: Reasons preventing teachers and staff from promoting physical activity, Texas, 2016

| Reasons | Count | Percentage |
|--|-------|------------|
| Total | 733 | 100.0 |
| Insufficient funds | 187 | 25.5 |
| Lack of space or equipment | 151 | 20.6 |
| Lack of physical education resources | 91 | 12.4 |
| Lack of staff training and education in the area of physical activity | 80 | 10.9 |
| No barriers | 71 | 9.7 |
| Other | 50 | 6.8 |
| Lack of established policies on physical activity (e.g. curriculum, materials) | 42 | 5.7 |
| Lack of support from teachers | 29 | 4.0 |
| Lack of support from parents/families | 28 | 3.8 |
| Lack of support from administration | 4 | 0.5 |

Note: Multiple responses possible.

Table 36: Frequency that teachers and staff receive professional development on children’s physical activity, Texas, 2016

| Frequency | Count | Percentage |
|---------------------------|-------|------------|
| Total | 622 | 100.0 |
| Never | 41 | 6.6 |
| Less than 1 time per year | 107 | 17.2 |
| 1 time per year | 260 | 41.8 |
| 2 times per year or more | 214 | 34.4 |

Definition: For this assessment, professional development on children’s physical activity does not include training on playground safety. Professional development can include taking in-person or online training for contact hours or continuing education credits. It can also include information presented at staff meetings.

Table 37: Frequency that teachers and staff receive professional development on children’s physical activity, by facility type, Texas, 2016

| Frequency | Childcare Center | Childcare Home | Early Head Start | Head Start | State-funded Pre-K Program |
|---------------------------|------------------|----------------|------------------|------------|----------------------------|
| Total | 490 | 115 | 17 | 19 | 6 |
| Never | 6.5% (32) | 7.8% (9) | -- (0) | -- (0) | -- (0) |
| Less than 1 time per year | 18.8% (92) | 10.4% (12) | 5.9% (1) | 10.5% (2) | 16.7% (1) |
| 1 time per year | 40.8% (200) | 46.1% (53) | 58.8% (10) | 47.4% (9) | 50.0% (3) |
| 2 times per year or more | 33.9% (166) | 35.7% (41) | 35.3% (6) | 42.1% (8) | 33.3% (2) |

Definition: For this assessment, professional development on children’s physical activity does not include training on playground safety. Professional development can include taking in-person or online training for contact hours or continuing education credits. It can also include information presented at staff meetings.

Note: Multiple responses possible for facility type.

Table 38: Teachers and staff receive professional development on children’s physical activity, Texas Rising Star Program participants only, Texas, 2016

| Frequency | Count | Percentage |
|---------------------------|-------|------------|
| Total | 137 | 100 |
| Never | 8 | 5.8 |
| Less than 1 time per year | 23 | 16.8 |
| 1 time per year | 52 | 38.0 |
| 2 times per year or more | 54 | 39.4 |

Table 39: Children’s physical activity topics addressed by professional development for current staff, Texas, 2016

| Topics | Count | Percentage |
|--|-------|------------|
| Total | 622 | 100.0 |
| Encouraging children’s physical activity | 496 | 79.7 |
| Children’s motor skill development | 479 | 77.0 |
| Recommended amounts of daily physical activity for young children | 380 | 61.1 |
| Limiting long periods of seated time for children | 350 | 56.3 |
| Our program’s policies on physical activity | 211 | 33.9 |
| Communicating with families about encouraging children’s physical activity | 206 | 33.1 |
| Other | 23 | 3.7 |

Note: Multiple responses possible.

Interpretations for Tables 35-39:

- 1 out of 4 (25.5%) survey respondents reported that insufficient funds prevent teachers and staff from promoting physical activity; 1 in 5 (20.6%) reported lack of space or equipment prevent them promoting physical activity (Table 35).
- Across all facilities, 41.8% of respondents reported that teachers and staff receive professional development on children’s physical activity one time per year; 34.4% reported that staff receive training two times per year or more (Table 36).
- Among respondents from Childcare Centers, 40.8% reported that teachers and staff receive professional development on children’s physical activity one time per year (Table 37).
- Among respondents from Childcare Homes, 46.1% reported that teachers and staff receive professional development on children’s physical activity one time per year (Table 37).
- Among respondents at facilities participating in the Texas Rising Star Program, 39.4% reported that teachers and staff receive profession development on children’s physical activity two times per year or more, and another 38.0% reported receiving training one time per year (Table 38).
- 4 in 5 (79.7%) survey respondents reported that professional development for current staff on children’s physical activity included encouraging children’s physical activity; 77.0% reported that it addressed children’s motor development (Table 39).

Table 40: Demographics of survey respondent, Texas, 2016

| Demographic | Count | Percentage |
|--|-------|------------|
| Total | 827 | 100.0 |
| Age Group | | |
| 21 - 39 | 91 | 15.6 |
| 40 - 49 | 175 | 30.1 |
| 50 - 59 | 207 | 35.6 |
| 60 - 89 | 109 | 18.7 |
| Gender | | |
| Female | 575 | 97.0 |
| Male | 18 | 3.0 |
| Language primarily spoken in childcare center, home, or facility | | |
| Only English | 283 | 45.9 |

| | | |
|--|-----|------|
| More English than another language | 216 | 35.0 |
| Only Spanish | 0 | 0.0 |
| More Spanish than another language | 5 | 0.8 |
| Both English and Spanish | 107 | 17.3 |
| Language other than English or Spanish | 3 | 0.5 |
| Highest grade or year of school completed | | |
| Never attended school or only attended kindergarten | 0 | 0.0 |
| Elementary (grades 1 – 8) | 2 | 0.3 |
| Some high school (grades 9 – 12) | 1 | 0.2 |
| High School graduate or GED | 42 | 7.0 |
| Child Development Associate (CDA) | 55 | 9.1 |
| Some college or technical school (College 1 year to 3 years) | 194 | 32.1 |
| College graduate (College 4 years or more) | 203 | 33.6 |
| Graduate Degree | 107 | 17.7 |
| Hispanic/Latino | | |
| No | 518 | 86.3 |
| Yes | 87 | 14.5 |
| Race | | |
| White | 500 | 83.3 |
| Black or African American | 66 | 11.0 |
| Asian | 8 | 1.3 |
| Native Hawaiian or Other Pacific Islander | 2 | 0.3 |
| American Indian or Alaska Native | 2 | 0.3 |
| More than one race | 8 | 1.3 |
| Other | 14 | 2.3 |

Interpretation for Table 40:

- More than a third (35.6%) of survey respondents were 50-59 years of age and almost all were female (97.0%).
- At their facilities, 45.9% of respondents only speak English, more than a third (35.0%) speak English more than any other language, and 17.8% speak both English and Spanish.
- For a third (33.6%) of survey respondents, the highest level of school completed was four or more years of college; for another third (32.1%) of respondents, the highest level of school completed was some college or technical school.
- About 14.5% of respondents were Hispanic or Latino and more than 4 in 5 (83.3%) were white.

Limitations of the Data:

- The findings from the 2016 Early Childhood Physical Activity Survey do not represent all childcare facilities in Texas. Findings are only applicable to those who responded to the survey.
- The survey was initially sent to childcare providers with public email addresses obtained from the Department of Family and Protective Services Child Care Search (http://www.dfps.state.tx.us/Child_Care/Search_Texas_Child_Care/ppFacilitySearchDayCare.asp), which yielded 7,542 email addresses in January 2016. After removing duplicate emails, there were a total of 6,561 unique email addresses. An additional seven email addresses were added to the final listserv per their request to participate in the survey. A total of 6,568 email addresses were contacted to participate in the survey.
- The survey was administered online and anyone with the link to the survey could participate; therefore, some survey respondents could have responded to the survey more than once. Because the survey did not collect identifiable information from survey respondents there was no way to identify and remove results from respondents who took the survey more than once.
- For analysis of individual questions, respondents who did not answer a particular question were excluded but were not completely removed them from all analyses.
- The Early Childhood Physical Activity Survey collects self-reported data that may introduce bias and underestimate the percentage of undesirable practices or overestimate the percentage of desirable practices or policies.
- This is the first time the Early Childhood Physical Activity Survey has been conducted, so comparison to historical data is not available.

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