# Early Childhood Health Assessment 2015

Focus on Preschool-Aged Obesity





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# **Executive Summary**

Based on the most recent national data (2009-2011) Marion County has a higher percent of low income preschoolers who are obese (18.0%) than the United States (14%).<sup>1</sup> In order to assess this disparity, the Marion County Preschool Obesity Task Force, a group of community partners serving low-income preschoolers and their families, convened to evaluate Marion County child care facilities nutrition, physical activity and screen time practices for conformity to national recommendations for healthy weight preschoolers.

The assessment design and methodology was adapted from *Right from the Start*, a Kaiser Permanente Community Fund Grant funded project, conducted by Oregon Public Health Institute for Multnomah County, Oregon.

In the interest of identifying child care practices utilized by low-income preschoolers in Marion County, this assessment focused on child care providers located within communities that may have a higher proportion of families and children in poverty, since Healthy People 2020 lists geography as an important determinant of health. All but one of the survey participants partook in the Department of Human Services Childcare Assistance Program, meaning that they accept children who are eligible for a childcare subsidy due to family income.

Assessment goals were to:

- Gain a greater understanding about the practices and beliefs of home based child care providers that may contribute to obesity. Particular foci included nutrition, physical activity, and screen time, all known risk factors for childhood obesity identified by the American Academy of Pediatrics.
- 2. Compare and contrast child care providers operating under different regulations (pg.6) which can impact their practices.
- 3. Compare child care providers that participate in the USDA Child and Adult Care Food Program (CACFP) with those that do not participate.

### **KEY FINDINGS:**

- Unlicensed child care settings demonstrate the highest rate of serving food family style. A family style serving practice allows children to serve themselves, choose which foods they would like to eat from a common area, and stop eating when they feel full.
- There was no common trend in type of milk served to children. Since there is a difference in fat content recommendations between 0-3 year olds and preschool-aged (3-5 year olds), this can be confusing to child care providers.
  - The recommendation for preschool children according to the 2010 Dietary Guidelines for Americans is to consume 2 to 2.5 cups of milk and milk products a day.<sup>12</sup> The Robert Wood Johnson Recommendation for Healthier Beverages recommends milk to be unflavored, and low-fat or nonfat.<sup>13</sup>
  - The American Academy of Pediatrics recommends toddlers to 2 year olds to consume whole milk.<sup>28</sup>
- Childcare providers in rural communities were more likely to offer screen time in excess of 1 hour than child care providers in urban communities.
- No significant difference was found between Child and Adult Care Food Program (CACFP) and non- CACFP-participant settings for availability of sugar sweetened beverages and food serving practices.

# Methodology

In 2015, Marion County Public Health convened a task force of child care experts and early childhood partners to review preliminary data on obesity in low income preschool aged children, and guide further assessment of the issue. Task force members decided to survey child care providers in Marion County to better understand provider beliefs and practices that may contribute to childhood obesity. Task force partners included Oregon Child Development Coalition, Marion County WIC, YMCA of Marion and Polk Counties, Salem- Keizer Head Start, Early Learning Hub, Community Action Agency Head Start, Childhood Resources and Referral, and Nutrition First. These meetings were facilitated by Marion County Health Department which also provided background and resource information. A total of three meetings were held to review preliminary data, plan the survey, review survey results and agree upon strategies.

A list of approximately 281 child care providers located in Marion County was provided by Child Care Resource and Referral of Marion, Polk, and Yamhill Counties (CCR&R).

<u>Survey Development:</u> Survey methodology was adapted from Right from the Start, a similar child care survey assessment that was conducted in Multnomah County, Oregon in 2009.<sup>11</sup> Oregon Public Health Institute's *Right from the Start* program allowed Marion County to view a copy of their survey, which was adapted for purposes of this assessment. A modified form of the Dillman<sup>\*</sup> method of survey administration was used to increase participation. The survey consisted of 17 questions written in a multiple choice format. The survey was translated into Spanish and was also administered as a phone survey to Russian speakers.

<u>Prescreening and Survey Administration:</u> A pre-screening telephone process was conducted to eliminate providers from the study who were not serving children between age two to five. This also helped to gauge willingness of providers to participate in the survey, and their interest in electronic vs. hard copy survey. Providers were told that if they participated in the survey, they'd be entered into a drawing for a \$25 gift card. Please see Table 8 for further description of pre-screening results.

<u>Survey Sample</u>: There were 281 childcare providers reported in Marion County. These providers were stratified by region and language to ensure a representative sample. After the prescreening process, the survey was sent to 100 Marion County child care providers in December 2014. For exclusion criteria please see Table 8.

<u>Analysis:</u> Descriptive epidemiology was used to analyze data and chi squared testing was preformed when sample sizes were large enough.

<sup>\*</sup> The Dillman method of survey administration is a Total Design Method using mail and telephone surveys, and subsequent follow-up telephone reminders. It has been historically shown to be successful on return rates. A study of the Dillman survey method efficacy is found here: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2328022/

Preschool-aged obesity, Marion County, Oregon, 2015

# Background

Obesity is a nationwide epidemic and is closely associated with leading causes of deaths in the United States, including heart disease, stroke, diabetes, and some cancers.<sup>1</sup> Over the past 30 years, obesity has more than doubled in children and quadrupled in adolescents.<sup>2, 3</sup> Since obese children are more likely to become obese adults<sup>26</sup> it is important to address the issue early in life to prevent health complications in adulthood.

In Marion County, 28.3% of children live below the poverty level.<sup>7</sup> Marion County also has a higher proportion of households headed by single parents (18.2%) than the United States (17.9%) and Oregon (15.1%). Because single-parent households have only one income source, they are more likely to fall beneath the federal poverty level. Therefore, most of children of single parents require full time child care while their parent is at work, making the evaluation of child care providers essential to maintaining the health of this population in Marion County.

For the purposes of this study we have defined childhood obesity in accordance with the American Association of Pediatrics guidelines. This is defined as; children under the age of 18 with a Body Mass Index (BMI) in the 95<sup>th</sup> percentile when compared with other children in their age group. To align with the federal preschool obesity dataset, we have limited the study population to children ages 2-5 years.



#### Figure 1:

Figure 1: show the percent of obese preschoolers by subpopulation in the United States vs. Marion County.

# **Child Care Settings in Oregon**

Four types of child care settings are available in Oregon. Three are regulated through the Office of Child Care within the Early Learning Division in the Oregon Department of Education.<sup>9</sup> The fourth (exempt care) is exempt from regulation. Brief descriptions of the child care facility types are below (Please see appendix 8 for setting specific requirements):

#### • Certified Child Care Centers

Certified Child Care Centers are licensed to serve more than 13 children. The maximum number of enrolled children is dependent on space: a facility must have 350 square feet of indoor space and 75 square feet of outdoor space per child.<sup>9</sup> The site must undergo a health and safety review. License to conduct child care is valid for one year.

#### • Certified Family Child Care Homes

Certified Family Child Care Homes can provide care for up to 16 children, including the provider's own children. Residents or regular visitors to the home must pass a criminal background check. The care can be in a single family home. The site must undergo a health and safety review. License to conduct child care is valid for one year.

#### • Registered Family Child Care Homes

Registered Family Child Care Homes can provide care for up to 10 children, including the provider's own children. Providers must meet training requirements and the site must undergo a health and safety review. Residents or frequent visitors of the home must pass a criminal background check. The license to conduct Certified Family Care is valid for two years.

#### • Exempt Care

Providers are exempt from regulation and licensure if they meet one or more of the following criteria: the provider cares for three or fewer children; the care is in the home of the child; the care is provided by a parent, guardian, or relative; or care is on occasional basis. Facilities are exempt if they meet one of the following: the facility provides a preschool program that is open less than four hours a day; the facility provides training on specific subjects; or the child care is within another facility such as an athletic club or one providing social activities.

# Child and Adult Care Food Program (CACFP) Overview:

The Child and Adult Care Food Program (CACFP) is a program that provides reimbursement for nutritious meals, milk and snacks served to eligible children in regulated child care centers, family day care homes, and adult care centers. Children in financial need are targeted for these benefits. Administered by the United States Department of Agriculture Food and Nutrition Service, the CACFP program reimburses child care settings for approved meals and snacks served to enrolled children, including preschoolers ages 2-5 years old. Providers must apply to participate and then receive reimbursement for approved foods. The following two tables show approved foods for breakfast, lunch, supper and snacks.

#### Participation in the Child and Adult Care Food Program (CACFP)

A question about CACFP participation was asked so that the participants could be stratified to show whether participation in CACFP is associated with a difference in type of food service and/or the types of food and beverages offered. 66.7% of surveyed child care settings participated in CACFP.





Figure 2: USDA CACFP Participation as reported by type of child care setting on survey. Certified child care center n=10, certified child care home n=9, registered FCC home n=21, exempt n=5.

#### **Reasons for lack of participation in CACFP**

Task force members reported that some providers do not participate in CACFP due to various barriers (see graph below), to address this concern and measure its validity, related questions were added to the survey. The finding was that "Too much paperwork" was a common response.

Table 1:	
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Facility Type	If No, Why?
Certified Child Care Centers (7 respondents)	There is too much paperwork (3) Doing what we've been doing before (1) Tried in the past and didn't work out (1) Don't know about it or how to get started (2)
Registered FCC Homes (3 respondents)	There is too much paperwork (2) Claim deduction on taxes (1)
Exempt (4 respondents)	There is too much paperwork (1) Have not tried them (1) I don't know what it is (1) Parents Bring Food (1)
Unknown (1 respondent)	There is too much paperwork (1)

Table 1: Comments from Child Care Settings that did not participate in CACFP and Why

## **Survey Results**

The overall survey response rate was 46%, with 46 child care providers responding out of 100 contacted providers.



Figure 3:

Figure 3: Breakdown by setting type of the 100 contacted providers.



Figure 4: Breakdown by setting type of the 45 providers that responded to the survey

One respondent did not specify what type of provider he/she was. Five of seven (71%) exempt providers responded. Twenty-one of fifty-two (46%) of registered FCC home providers responded. Nine of eighteen (50%) Certified Child Care Homes responded. Exempt providers had the highest response rate. (n=46)

Preschool-aged obesity, Marion County, Oregon, 2015

#### **PROVIDER LOCATION AND LANGUAGE**

#### Table 2:

Regions (English unless otherwise noted)	Number Represented				
Aurora		1			
Hubbard			1		
Woodburn	Total: 7				
	Spanis	sh: 5	Russia	an: 2	
Salem- North/ NorthEast		Tota	al: 43		
(covers zip codes 97301, 97303, 97305, 97317)	97301:22	97303:4	97305:12	97317: 5	
	Spanish: 4	Spanish:3	Spanish:3	Spanish: 1	
	English:18	English: 1	English: 9	English: 4	
Salem- South Salem	Total: 21				
(covers zip codes 97302, 97306)	9730	2: 13	973	06:8	
Keizer		-	13		
Aumsville			3		
Jefferson			3		
Mt. Angel	1				
Silverton	3				
Stayton	4				
Total	100				

Table 6: Survey distribution by region and language (n=100).

#### Table 3:

Regions	Respondents	
Aurora	1	
Hubbard	1	
Woodburn	Russian: 1 Spanish: 2	
North/ Northeast Salem	English: 13 Spanish: 4	
South Salem	8	
Keizer	7	
Aumsville	2	
Jefferson	2	
Mt. Angel	1	
Silverton	1	
Stayton	2	
Unknown	1	
Total	46	

Table 3: Survey respondents by region and language

There was at least one response from each region. Six of 16 Spanish-speaking providers responded. One of two Russian-speaking providers responded. The Spanish and/or Russian-speaking providers that responded were all registered FCC homes. (n=46)

#### NUTRITION

#### Food offered by child care settings:

The United States Department of Agriculture (USDA) recommends that child care providers offer daily servings from two of the following food groups: grains (whole grains recommended), vegetables, fruits, dairy, and lean protein foods, but there are no specific recommendations for snacks from the USDA at this time.

Overall, the providers reported serving a variety of healthy options. All responder either offered children snack foods or allowed them to eat snacks from home. Registered FCC Homes had the greatest percent of respondents, 57%, that served cookies, brownies, crackers or other similar snack items. Certified Child Care Centers had the highest number of respondents answering fruits or vegetables, at 100%.

Setting	Certified Child	<b>Certified Child</b>	<b>Registered FCC</b>	
Food Type	Care Centers	Care Homes	Homes	Exempt
Offer fruits daily <sup>1</sup>	100%	100%	86%	100%
Offer vegetables daily <sup>1</sup>	100%	100%	90%	100%
Offer non-whole grains daily	80%	89%	57%	66%
Offer whole grains daily <sup>2</sup>	100%	100%	95%	100%
Offer lean meats daily	90%	100%	95%	80%
Offers dairy products daily	100%	100%	86%	100%
Offers treats daily <sup>2</sup>	10%	22%	14%	40%

#### Table 4:

Table 4: Foods offered as reported by type of child care setting on survey (n=46). This question allowed providers to select more than one answer, this accounts for any responses adding up to greater than 100.

<sup>1</sup>The USDA recommends five servings of fruits and vegetables daily

<sup>2</sup> The USDA recommends serving whole grain servings. The USDA suggests treats in moderation.





Figure 5: Snacks offered as reported by type of child care setting.

#### Beverages offered by child care settings:

The USDA's 2010 Dietary Guidelines for Americans recommend preschool children consume 2 to 2.5 cups of milk and milk products a day. <sup>12</sup> The Robert Wood Johnson *Recommendation for Healthier Beverages* recommends: water, to be free available to access to children; milk, to be served unflavored, low-fat or nonfat and no more than 8 ounces portions; and 100% fruit drink to be limited to 0 to 4 portions.<sup>13</sup>

#### Table 5:

Setting Beverage Type	Certified Child Care Centers	Certified Child Care Homes	Registered FCC Homes	Exempt
Offers 100% fruit drink daily	60%	67%	67%	70%
Water freely available <sup>1</sup>	40%	86%	78%	100%
Offers whole milk daily <sup>2</sup>	40%	38%	33%	40%
Offers 2% or low fat milk daily	60%	57%	78%	90%
Offers fat free milk daily	0%	43%	67%	0%

**Table 5: Beverages offered as reported by type of child care setting on survey.** Survey results show that while majority serves low-fat milk, there are providers that serve whole milk and/or fat free milk. Most providers report serving 100% fruit juice. <sup>1</sup> It is recommended to offer water where children can access it as often as they like.

The American Academy of Pediatrics recommends "kids should not consume energy drinks. Most cases kids don't need them [energy and sports drinks] and some of these products contain substances that could be harmful to children." General recommendations include: decrease or eliminate intake of sugar- sweetened beverages and replace them with healthier options that contain no or low amounts of sugar and calories. <sup>15</sup> Sugar- sweetened beverage categories include: non-100% fruit drinks, sports drinks, soda, and energy drinks.

#### Figure 6:



Figure 6: Sugar-sweetened beverages offered, reported by type of child care setting. A small number of providers in all settings serve sugar- sweetened beverages. Exempt care has the largest percentage, but the difference was not statistically significant. Missing data for Registered Family Child Care Homes may be a concern. See page 30 for data limitations.

**CACFP on Beverages:** Sugary beverages have been associated with higher BMIs in children ages 2-5. (American Academy of Pediatrics, 2013)

On survey, a lower percent of providers participating in the USDA Child and Adult Care Food Program (CACFP) reported that they serve sugar-sweetened beverages than their non-CACFP peers. To determine if this difference was statistically significant, a chi- square test was performed. At a p-value of 0.21, this was not found to be statistically significant. CACFP-participant settings were just as likely to serve sugar-sweetened beverages as non-CACFP-participant settings.

#### Table 6:

	Serves Sugar- Sweetened Beverages	Does Not Serve Sugar- Sweetened Beverages	Missing Data
CACFP	15%	76%	11%
Non- CACFP	36%	64%	0%

Table 6: Service of sugar-sweetened beverages - Comparison of CACFP and non-CACPF settings practices as reported on survey

**Beverage offering by geographic location:** Childcare providers in three communities (Northeast Salem, Keizer, and Rural Cities) served sugar- sweetened beverages. As figure 7 indicates, child care providers in Keizer are more likely to serve sugar- sweetened beverages than the rest of Marion County child care providers. Keizer child care providers are statistically more likely to serve sugar-sweetened beverages, with a p-value of 0.0016.



#### Figure 7:

Figure 7: Sugar-sweetened beverages as reported by region

#### **Food Serving Practices:**

How an adult or a caretaker serves food to the children and how children are able to access food is an important factor for obesity. The United States Department of Agriculture (USDA) ChooseMyPlate recommends that children eat in a family style setting with adults eating alongside them.<sup>16</sup> In a family style setting dishes of food are placed on the table and diners serve themselves. This practice allows the child to follow their own eating cues in deciding portion sizes.

Two child care setting types did not practice a family style serving setting at all (Registered FCC Homes and Certified FCC Homes). Some Certified Centers (20%) and Exempt (40%) served food family style. Exempt care settings were more likely than the other types of child care facilities (40%, p< 0.02) to allow children to serve themselves and have providers eat with them.



Figure 7:

Figure 7: Food serving practices as reported by type of child care setting on survey

**CACFP on Food Service Practice:** Use of family style service, where the child serves himself and then eats alongside the adult provider, was not common in either the CACFP or the non-CACFP provider groups. Again a chi- square test was performed to determine if any of the percentage differences were significant. At a p-value of 0.50, this was not found to be statistically significant. CACFP-participant settings were just as likely as non-CACFP-participant settings to have children serve themselves and follow their own eating cues.

Table 7:			
	Children Self Serve and Providers Eat	Does Not Have Children Self Serve and Provider Eat	Missing Data
CACFP	6%	77%	16%
Non- CACFP	14%	86%	0%

Table 7: Family style food service - Comparison of CACFP and non-CACPF settings practices as reported on survey

**Food Service by Geography:** Providers from rural areas had the largest percent (15%), were serving food in a family style setting. Other areas where providers serve family style are South Salem and Northeast Salem, at 13% and 6%, respectively. There were no Keizer providers that reported serving family style.

#### Figure 8:



Figure 8: Food serving practices as reported by region

# PHYSICAL ACTIVITY AND SCREEN TIME

The recommendation for physical activity for preschoolers is to have 60 minutes or more of free play activity each day, with several opportunities for structured play daily. <sup>17</sup> "Structured play" means adult-led activities that are structured to have a purpose, such as focusing on strength or endurance. <sup>18</sup> The term "free play" means unstructured physical activity that is chosen by the child, for example playing on the playground, playing tag with friends, and climbing.

The majority of providers reported offering one or more hours of free play daily as recommended by the USDA. Findings from the study indicated that there was a difference between reported play activities within child care provider type. All Certified Child Care homes (100%) reported providing at least one hour of free play daily, followed by Certified Child Centers (90%), Registered FCC Homes (76%), and Exempt (60%).





Figure 9: Amount of free play as reported by type of child care setting on survey

While there is no general recommendation for any amount of structured (teacher-led) play, it is encouraged by the American Academy of Pediatrics that children have 60 minutes of age appropriate physical activity. Settings that offer one hour or more of teacher-led play: 0% of Certified Child Care Centers, 44% of Certified Child Care Homes, 47% of Registered FCC Homes, and 20% of Exempt care.





Figure 10: Amount of structured play as reported by type of child care setting on survey

In Marion County, Oregon, rainy weather occurs 8 months out of the year. To determine if weather reduces opportunities for physical activity, providers were asked what they do in the case of inclement weather. Providers were able to select more than one answer, indicating there was more than one response that could occur in the case of bad weather and resulted in percentages over 100. When the weather is bad, children go outside anyway or have vigorous indoor play in 90% of Certified Centers, 78% of Certified FCC Homes, 71% of Registered FCC Homes, and 40% of Exempt facilities.





Figure 11: Inclement weather activities as reported by type of child care setting on survey

#### Screen Time

The American Academy of Pediatrics recommends limiting leisure screen time (television, computer, computer games, smart phones, etc.) to one to two hours daily.<sup>19</sup> It was noted, that upper limit of two hours can amount to a third of the child's time in the child care setting. Certified child care homes were significantly different in the amount of screen time allowed, with a p- value of 0.028 for more than 1 hour of screen time daily. This means that certified child care homes are more likely to offer children more than one hour of screen time than certified child care centers, registered homes, and exempt care.



#### Figure 12:

Figure 12: Screen time offered as reported by type of child care setting on survey

**Screen time by Geography:** More than 50% of rural child care providers offer less than one hour of screen time. In comparison, over 75% of providers in Keizer, Northeast Salem and South Salem offer one hour of screen time. Child care providers in rural areas are more likely to offer screen time in excess of one hour. This finding was determined to be statistically significant, with a p- value of 0.059.



Figure 13:

Figure 13: screen time by region

#### **PROVIDER INTERESTS**

The survey included some additional questions about policies and provider interest in training and materials related to nutrition, physical activity and screen time.

#### Written Policies or Guidelines

Providers were asked whether they have and use written policies for nutrition, physical activity, and screen time. This is of interest because if child care providers have policies in place they are more likely to follow them. Responses indicated that providers participating in the USDA CACFP program have written nutrition guidelines. For physical activity and screen time, Certified Child Care Homes were consistently more likely to report having and following a written policy, followed in order by Certified Child Care Centers, Registered Family Care, and Exempt providers. The fact that 20% of exempt providers responded that they have written policies for physical activity and screen time is surprising and may indicate that some respondents misunderstood the question.

#### **Training and Health Information Promotion**

The survey also gauged provider interest in training and materials that may help them provide nutrition, physical activity and more appropriate screen time education to children and the families they serve.

More than half of the providers that responded agreed or strongly agreed that they would promote healthy eating and physical activity if they had the necessary training, materials, and tools to do so. Certified Child Care Centers were the most likely to agree or strongly agree. However, there are a few providers that disagreed, which may indicate they feel they are educated enough or do not feel they need additional training. Some providers, including 60% of Certified Childcare Centers reported that they are already providing health information to the families they serve.

Provider interest in health promotion presents an opportunity to engage providers in training on topics that will inform their practices.



# Recommendations

After review of the results of the assessment, the Early Childhood Health Assessment Task Force has put forth recommendation on how to advance the health of children, especially targeting low-income preschoolers, in childcare. The Task Force has identified three goals to focus on for child care settings:

- 1. Increase promotion of Family Style food service
- 2. Increase healthy beverage options that contain low or no sugar
- 3. Promote Increase of physical activity in the child care home

As we put forth our recommendations, we ask for stakeholders and industry experts to work within their areas of influence and expertise to advance child care health and encourage prevention.

Additionally, the Task Force has agreed on the completion of a Logic Model. The logic model (see appendix), addresses common messaging, increased training for providers, and evaluation.

The Task Force has agreed on common messaging of utilizing ChooseMyPlate and 5-2-1-0 materials to ensure the same health information and education get communicated. The Task Force will work with community partners and child care providers and field experts to increase cross collaborations and trainings among child care providers. In addition, it is a strategy to provide a common training such that all providers are gaining the same information, as well as addressing certain issues such as food serving practices.

It is our hope to re-do this survey to assess the change and the work being done in 2 or 3 years. By evaluating the work that is being done, we can determine the successes as well as the challenges that are being faced.

#### Suggestions for Implementing Recommendations:

- 1. Utilize the common messages and associated resources of ChooseMyPlate (<u>http://www.choosemyplate.gov</u>) and 5-2-1-0 (<u>http://www.5210challenge.org/</u>).
- 2. The Early Learning Hub, Inc. in Marion County will host a site for posting resources that all child care provider agencies can access. Resources include but are not limited to: health education material, social media awareness, and newsletters.
- 3. The Marion County WIC and Early Child Resource and Referral of Marion, Polk, and Yamhill Counties will work together on a possible training collaboration.
- 4. Improve communication with one another by sharing resources and training for child care providers.
- 5. Standardize trainings for providers by using the ChooseMyPlate and 5210 materials.
- 6. Engage with child care providers on best practices for writing and utilizing written policy.

As resources permit, child care facilities will be resurveyed in 2-3 years to evaluate progress toward goals set by the Early Childhood Health Assessment Task Force.

# Logic Model

Objective	Strategies Point of Contact	Short Term Measure	Timeline	Long Term Measure
Common Messaging				Redo Survey in 2-3 years (Fall 2017 or 2018)
Email chain for sharing new	All to share events or resources		Ongoing	
resources	All to share events, news, and marketing on organization respective Facebook pages		Ongoing	
Create and implement common messaging	Using 5-2-1-0 and MyPlate messaging.	-	Ongoing	Attain Head Start, WIC BMI biometric data
	Documents and resources will be uploaded onto Basecamp so partners can have access.			
Resource List	Early Learning Hub as host		Ongoing	
	o Basecamp to collect information/ resources			
Present data to the Early	o Pinterest	Amount of	~	
Learning Hub	MCHD—Connie Lu to present	staff/ partners reached (~24)	Completed March 2015	
Increase Training for Providers				
Collaborations between organizations to share training/ training content	WIC/Nutrition First/ CCR&R to talk and collaborate together to determine how to get credit –Gustavo Gutierrez- Gomez/ Sue Maxwell/ Shannon Vandehey	Number of providers trained	Gustavo and Shannon to follow up	

Put approved classes on OR Registry Calendar	CCR&R—Shannon Vandehey, to update as needed		Lisa will follow up with Shannon on who is providing the training and what the messaging is (children listening to hunger cues vs. family style, etc., collaboration with trainers) Ongoing	
Add handout to provider orientation (information from resource list?)	Nutrition First—Sue Maxwell	Number of providers reached	Ongoing, to complete by end of year	
Evaluation			· 2017 or 2018	
Develop e-survey to measure effectiveness on providers attending trainings or changing their practices	MCHD—Marion County Health Department will coordinate in 2-3 years (2017) to repeat survey with childcare providers	Number of providers reached		

#### Table 8:

Did not serve preschoolers	33
Not currently providing childcare or closing	10
Declined to participate in the survey	4
Disconnected	7
Unable to reach, messages left	127
100 willing to participate in the survey	<u>100</u>
TOTAL	281

Table 8: Pre-screening calls made to 281 providers.

57 paper and 43 electronic surveys were sent to the pre-screened participants the last week of December 2014. Two subsequent reminders were provider in the participant's preferred format (paper or electronic). The survey closed February 2015. We received 26 completed paper mailing surveys, and 19 providers completed the survey electronically.

#### Table 9:

September 2014	Received 281 child care providers in Marion
	County from Child Care Resource and Referral
	of Marion, Polk, and Yamhill Counties
October 2014	Conducted pre-screening call to the 281
	providers
December 2014- January 2015	Distributed survey to stratified 100 providers
	via email and mailings

 Table 9: Timeline Description of Pre-Screening and Survey Process

# Preschool Obesity Assessment Task Force Members

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With thanks to: Rachel Posnick for data analysis support

# **Limitations of this Study**

Although this assessment was based on a successful assessment in a neighboring county in Oregon, there are limitations to the assessment process in Marion County that must be noted. First, this assessment only surveyed from known child care facilities. It is possible that many exempt child care facilities exist in Marion County but because they are unregulated they were not included in the list of child care facilities from which the sample was created. Therefore, this data may be biased towards facilities with nutrition and physical activity programs in place due to certification regulations. Additionally, this assessment did not have dedicated funds, so survey distribution was limited by the budget. All of the information reported in this assessment was self-reported via survey, so responses are subject to responder bias. There was a good response rate but there is a possibility that the child care facilities that chose to respond are different than the child care facilities that did not respond. Lastly, due to limited funds, only a certain number of surveys could be sent to each geographic location in Marion County. Marion County is a large county and many of the rural communities have different demographics and socioeconomic factors than Salem, but due to small sample sizes their data was combined resulting in a loss of the ability to tease out differences between child-care facilities in rural Marion County.

# References

- 1. CDC-TV. The Obesity Epidemic (July 2011). <u>http://www.cdc.gov/cdctv/ObesityEpidemic/</u>
- Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of childhood and adult obesity in the United States, 2011-2012. *Journal of the American Medical Association* 2014; 311(8):806-814.
- 3. National Center for Health Statistics. Health, United States, 2011: With Special Features on Socioeconomic Status and Health. Hyattsville, MD; U.S. Department of Health and Human Services; 2012.
- 4. Oregon Blue book (2011) <u>http://bluebook.state.or.us/default.htm</u>
- 5. United States Census Bureau: American Community Survey (2012). http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF
- 7. Children living below poverty level. American Community Survey(2009-2013) <u>http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml</u>
- 8. Childhood obesity facts. Prevalence of childhood obesity in the United States (2011-2012). http://www.cdc.gov/obesity/data/childhood.html
- 9. Oregon Office of Child Care <a href="http://www.oregon.gov/OCC/pages/index.aspx">http://www.oregon.gov/OCC/pages/index.aspx</a>
- 10. Child and Adult Care Food Program <a href="http://www.fns.usda.gov/cacfp/child-day-care-centers">http://www.fns.usda.gov/cacfp/child-day-care-centers</a>
- 11. Oregon Public Health Institute. Right From The Start <u>HTTP://OPHI.ORG/STRATEGIC-</u> <u>PROJECTS/HEALTHY-CHILD-CARE/RIGHT-FROM-THE-START-CHILD-CARE-ASSESSMENT/</u>
- 12. US Department of Agriculture. Dietary Guidelines for Americans 2010. http://www.health.gov/dietaryguidelines/dga2010/dietaryguidelines2010.pdf
- 13. Robert Wood Johnson Foundation. Recommendations for Healthier Beverages (2013) http://www.rwjf.org/content/dam/farm/reports/issue\_briefs/2013/rwjf404852
- 14. USDA ChooseMyPlate.gov <u>http://www.choosemyplate.gov/preschoolers/healthy-habits/meal-and-snack-schedule.html</u>
- 15. American Academy of Pediatrics (2011) Kids should not consume energy drinks, and rarely need sports drinks. <u>https://www.aap.org/en-us/about-the-aap/aap-press-room/pages/Kids-Should-Not-Consume-Energy-Drinks,-and-Rarely-Need-Sports-Drinks,-Says-AAP.aspx</u>
- 16. US Department of Agriculture. ChooseMyPlate. Help them know when they've had enough. <u>http://www.choosemyplate.gov/preschoolers/healthy-habits/know-when-they-had-enough.html</u>
- 17. Centers of Disease Control and Prevention. Physical Activity for children (2015) http://www.cdc.gov/physicalactivity/everyone/guidelines/children.html
- 18. US Department of Agriculture. ChooseMyPlate.gov How Much Physical Activity? http://www.choosemyplate.gov/preschoolers/physical-activity/how-much.html
- 19. US Department of Agriculture. ChooseMyPlate.gov. Inactive Time http://www.choosemyplate.gov/preschoolers/physical-activity/inactive-time.html

Preschool-aged obesity, Marion County, Oregon, 2015

- 20. Outcome of a Food Obervational Study Among Low- Income Preschool Children Participating in a Family-Style Meal Setting (2014) http://heb.sagepub.com/content/early/2014/10/01/1090198114550823.abstract
- 21. Trends in the Prevalence of Extreme Obesity Among US Preschool-Aged Children Living in Low-Income Families (2012) <u>http://jama.jamanetwork.com/article.aspx?articleid=1487493</u>
- 22. Early life risk factors for obesity in childhood: cohort study (2005) <u>http://www.bmj.com/content/330/7504/1357?linkType=FULL&resid=330/7504/1357&journ</u> <u>alCode=bmj</u>
- 23. Television Viewing and Television in Bedroom Associated with Overweight Risk Among Low-Income Preschool Children (2002) http://pediatrics.aappublications.org/content/109/6/1028.short
- 24. Is the Canadian childhood obesity epidemic related to physical inactivity? (2003) http://www.nature.com/ijo/journal/v27/n9/abs/0802376a.html
- 25. Obesity in children. Part 1: Epidemiology, measurement, risk factors, and screening (2008) <u>http://www.bmj.com/content/337/bmj.a1824.abstract</u>
- 26. Guo, SS and Chumlea WC. Tracking of body mass index in children in relation to overweight in adulthood (1999) <u>http://ajcn.nutrition.org/content/70/1/145s.full</u>
- 27. United States Census Bureau (2013) <u>http://quickfacts.census.gov/qfd/states/41/41047.html</u>
- 28. American Academy of Pediatrics. Dietary Recommendations for Children and Adolescents: A Guide for Practitioners (2013) http://pediatrics.aappublications.org/content/117/2/544/T3.full
- 29. Low Income Preschool Obesity (2009-2011). Retrieved March 2015 from http://www.cdc.gov/pednss/
- 30. Childhood Obesity Facts. Childhood obesity among preschoolers is more prevalent among lower-income families (2011). Retrieved March 2015 from <a href="http://www.cdc.gov/obesity/data/childhood.html">http://www.cdc.gov/obesity/data/childhood.html</a>
- 31. Child and Adult Care Food Program. Meals and Snacks. Retrieved June 2015 from http://www.fns.usda.gov/cacfp/meals-and-snacks

# Appendix

#### Appendix 1:

#### Child Care Survey Questions

# Note – the actual survey was a two-sided legal-sized page. The questions have been recreated for inclusion in this document

#### Nutrition

1. In a normal day, how often are each of the following foods given to children in your child care setting? Please put a check mark in the box that best describes your answer

	Rarely	1 serving	2-3 servings	4 or more
	or never	per day	per day	servings per day
a. Fruit (fresh, frozen, dried or canned)				
b. Vegetables (do not count fried potatoes or ketchup)				
c. Non-whole grain products (white bread, white rice, crackers, noodles, etc.)				
d. Whole grain products (whole wheat bread, oatmeal, brown rice, etc)				
d. Lean meats, poultry, fish, beans, peanut butter, eggs, tofu				
e. Dairy products (cheese, yogurt, cottage cheese, etc.)				
f. Treats (cookies, cupcakes, brownies, etc)				

#### 2. How much of each type of drink is served?

Please put a check mark in the box that best describes your answer

		none	Less than 4 ounces / day	4-6 ounces per day	More than 6 ounces /day	As much as they want
a. 100%	o fruit juice					
b. Fruit	drinks (Capri Sun, Kool- Aid, etc.)					
c. Sport	ts drinks (Powerade, Gatorade, etc.)					
d. Soda	(Coca- Cola, Sprite, etc.)					
e. Wate	r					
f. Energy Drinks (Monster, Red Bull, etc.)						
f.	Whole Milk					
Milk:	2% or Low Fat Milk					
	Fat free Milk					
	Milk alternative (soy, almond milk)					

- 3. What do you usually give children for snacks? Circle all that apply
- a) The same foods I offer at meals
- b) Cookies, brownies, crackers, or snack chips and similar items
- c) Fruits or vegetables
- d) Children bring snacks from home
- e) We don't offer snacks
- 4. Does your child care setting have written instructions food that can be served to children? **Circle the answer that best applies to your facility**
- a) Yes, we follow the USDA Child and Adult Care Food Program instructions
- b) Yes, we have the USDA Child and Adult Care Food Program instructions, but we are unable to follow them
- c) Yes, we follow our own instructions

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- d) Yes, we have our own instructions but we are sometimes unable to follow them
- e) No, because we do not serve food to children
- f) No, we have no written instructions
- → If you circled **f**: Would you use written instructions if you had them?

Yes	🗌 No	I don't know/ Not sure
L 100		

5. Do you participate in the USDA Child and Adult Care Food Program?

No No

Yes

→ If No: Why? ☐ There is too much paperwork ☐ I don't know what it is ☐ Other \_\_\_\_\_

- 6. Are you able to get healthy food to serve to children?
  - Yes
     No
     I don't know/ Not sure
     → If No: Why? □Too far away □ Too expensive □Other \_
- 7. How do you serve food in your child care setting? Circle the answer that best applies to your facility.
  - a) Children serve themselves and child care providers eat with the children
  - b) Children serve themselves and child care providers <u>do not</u> eat with the children
  - c) We serve individual plates and child care providers eat with the children
  - d) We serve individual plates and child care providers <u>do not</u> eat with the children
- 8. I would promote healthy eating in my child care setting if I had more training and materials on how to do it. Strongly Agree Agree Unsure Disagree Strongly Disagree

#### **Physical Activity**

- 9. How much active free play time is normally provided to all children each day? This means time when children can run, jump, and play, either inside or outside. Circle the best answer.
  - a) None
  - b) 30 minutes a day or less
  - c) 1/2 hour to 1 hour
  - d) More than 1 hour to 1 ½ hours
  - e) More than 1  $^{1\!/_{\!2}}$  hours to 2 hours
  - f) More than 2 hours a day
- 10. How often do children participate in physical activity that is organized, or led by a teacher?
  - a) None
  - b) 30 minutes a day or less
  - c) 1/2 hour to 1 hour
  - d) More than 1 hour to  $1 \frac{1}{2}$  hours
  - e) More than 1  $^{1\!/_2}$  hours to 2 hours
  - f) More than 2 hours a day
- 11. If children usually go outside, but the weather is rainy, cold, snowy or very hot, what do the children usually do instead?
  - a) They stay inside for quiet time
  - b) They stay inside for mildly active play such as walking or standing
  - c) They stay inside for vigorous play such as running or jumping
  - d) They go outside anyway with the right clothes to protect from the weather.
- 12. Does your child care setting have written instructions about physical activity for children?
  - a) No, but I have unwritten instructions that I follow

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- b) Yes, but they are rarely followed
- c) Yes, and they are usually followed
- 13. I would promote physical activity in my child care setting if I had more training and materials on how to do it. Strongly Agree Agree Unsure Disagree Strongly Disagree
- 14. How often do preschool aged children (2-5 years old) watch TV, videos or play with a computer or video game each day (on average) while they are in your care? Please include education programs or videos.
  - a) Never
  - b) Less than one hour a day
  - c) 1-2 hours a day
  - d) Between 2-4 hours a day
  - e) More than 4 hours a day
- 15. Does your child care setting have written instructions about how often children can watch TV/videos and play with computers/video games/tablets/smartphones?
  - a) No, but I have unwritten instructions that I follow
  - b) Yes, but they are rarely followed
  - c) Yes, and they are usually followed
  - d) TV, videos, and computer games are not used at all

#### Other

- 16. Do you provide health information, such as handouts on nutrition or physical activity, to parents? Yes
  - No No

I would provide information if I had it

- 17. How long are children in your care?
  - a) Less than 2 hours
  - b) 2-4 hours
  - c) 5-6 hours
  - d) More than 6 hours

<sup>&</sup>lt;sup>1</sup> CDC. (2009-2011) Pediatric Nutrition Surveillance System. Retrieved March 2015 from http://www.cdc.gov/pednss/

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#### Appendix 2:

	CCD (Child Care Division) Regulated Care			Non- Regulated Care	
	Certified Child Care Centers	Certified Family Child Care	Registered Family Child Care	Exempt- Family Child Care	
# of children permitted at any one time	13+	16 (w/ assistant, includes own children)	10 (includes own children) Only 6 under 6; 2 under 2	Up to 3, if providing for more than one family	
On- site Health and Safety Inspection	✓	√	~	Must meet basic safety and health standards	
Background checks	√	✓	×	~	
Overview	✓	✓	✓		
Infant/ Child First Aid and CPR	✓	✓	~		
Food Handlers Certificate	✓	~	~		
Child Abuse and Neglect	✓	✓	~		
Planned Activities	✓	✓	✓		
Attendance Records	✓	✓	×	✓	
Written Guidance and Discipline Policy	√	~	4		
Daily Routine/ Schedule	√	✓	~		
Continuing Education	15 hrs/ year	15 hrs/ year	8 hrs/ 2 yr		

Appendix 2: The office of Child Care within the Early Learning Division of Oregon Department of Education.

#### **Appendix 3:**

<u>Breakfast</u>						
Select Three Components ( milk, fruit/vegetable, and grain/bread) for a Reimbursable Meal						
	Lunch or Supper					
Select Al	l Four Componen	ts for a Reimbursa	ble Meal			
Food Components	Ages 1-2		Ages 3-5			
	Breakfast	Lunch/Supper	Breakfast	Lunch/Supper		
1 milk <sup>2</sup>						
Fluid milk	½ cup	½ cup	¾ cup	¾ cup		
1 fruit/vegetable						
juice <sup>3</sup> , fruit and/or vegetable	¼ cup	¼ cup	½ cup	½ cup		
1 grains/bread <sup>4</sup>						
bread or	1/2 slice	½ slice	1/2 slice	1/2 slice		
cornbread or biscuit or roll or muffin or	1/2 serving	½ serving	½ serving	½ serving		
cold dry cereal or	¼ cup	¼ cup	⅓ cup	⅓ cup		
hot cooked cereal or	¼ cup	¼ cup	¼ cup	¼ cup		
pasta or noodles or grains	¼ cup	¼ cup	¼ cup	¼ cup		
1 meat/meat alternate						
meat or poultry of fish <sup>5</sup> or		1 oz		1 ½ oz		
alternate protein product or	Not eligible for	1 oz	Not eligible for	1 ½ oz		

alternate protein product or cheese or	Not eligible for breakfast	1 oz 1 oz	Not eligible for breakfast	1 ½ oz 1 ½ oz
egg or	reimbursement	1/2	reimbursement	3⁄4
cooked dry beans or peas or		¼ cup		¾ cup
peanut or other nut or seed butters or		2 Tbsp.		3 Tbsp.
nuts and/or seeds <sup>6</sup> or		½ OZ		¾ OZ
vogurt <sup>7</sup>		4 07		6 oz

<sup>1</sup> Children age 12 or older may be served larger portions based on their greater food needs. They may not be served less than the minimum quantities listed in this column.

<sup>2</sup> Milk served must be low-fat (1%) or non-fat (skim).

<sup>3</sup> Fruit or vegetable juice must be full-strength.

<sup>4</sup> Breads and grains must be made from whole-grain or enriched meal or flour. Cereal must be whole-grain or enriched or fortified.

<sup>5</sup> A serving consists of the edible portion of cooked lean meat or poultry or fish.

<sup>6</sup> Nuts and seeds may meet only ½ of the total meat/meat alternate serving and must be combined with another meat/meat alternate to fulfill the lunch or supper requirement.

<sup>7</sup> Yogurt may be plan or flavored, unsweetened or sweetened.

Appendix 3: Foods eligible for reimbursement for breakfast, lunch and/or supper: USDA Child and Adult Care Food Program Meals and Snacks<sup>31</sup>

#### Appendix 4:

<u>Snack</u>					
Select Two of the Four Components for a Reimbursable Snack					
Food Components Ages 1-2 Ages 3-5					
1 milk <sup>2</sup>					
Fluid milk	½ cup	½ cup			
2 fruits/vegetables					
juice <sup>3</sup> , fruit and/or vegetable	½ cup	½ cup			
1 grains/bread <sup>4</sup>					
bread or	1/2 slice	1/2 slice			
cornbread or biscuit or roll or muffin or	½ serving	½ serving			
cold dry cereal or	¼ cup	⅓ cup			
hot cooked cereal or	¼ cup	¼ cup			
pasta or noodles or grains	¼ cup	¼ cup			
1 meat/meat alternate					
meat or poultry of fish <sup>5</sup> or	½ OZ	½ OZ			
alternate protein product or	½ OZ	½ OZ			
cheese or	½ OZ	½ OZ			
egg <sup>6</sup> or	1/2	1/2			
cooked dry beans or peas or	¼ cup	% cup			
peanut or other nut or seed butters or	1 Tbsp.	1 Tbsp.			
nuts and/or seeds or	½ OZ	½ OZ			
yogurt <sup>7</sup>	2 oz	2 oz			

<sup>1</sup> Children age 12 or older may be served larger portions based on their greater food needs. They may not be served less than the minimum quantities listed in this column.

<sup>2</sup> Milk served must be low-fat (1%) or non-fat (skim).

<sup>3</sup> Fruit or vegetable juice must be full-strength.

<sup>4</sup> Breads and grains must be made from whole-grain or enriched meal or flour. Cereal must be whole-grain or enriched or fortified.

<sup>5</sup> A serving consists of the edible portion of cooked lean meat or poultry or fish.

<sup>6</sup>One-half egg meets the required minimum amount (one ounce or less) of meat alternate.

<sup>7</sup> Yogurt may be plan or flavored, unsweetened or sweetened.

Appendix 4: Snack foods eligible for reimbursement: USDA Child and Adult Care Food Program Meals and Snacks<sup>31</sup>