

# ACHIEVING A STATE OF HEALTHY WEIGHT ASHW 2016 REPORT



National Resource
Center for Health and
Safety in Child Care and
Early Education







## National Resource Center for Health and Safety in Child Care and Early Education

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Note: The <u>ASHW 2016 Supplement: State Profiles</u> (released June 2017) contains additional details and state-specific information.

Achieving a State of Healthy Weight: 2016 Update (ASHW 2016) reports changes that affect pediatric obesity prevention practices in child care licensing regulations enacted across the fifty states and the District of Columbia (collectively, the States) during calendar 2016. ASHW 2016 is the sixth annual update of the 2010 baseline study, Achieving a State of Healthy Weight: A National Assessment of Obesity Prevention Terminology in Child Care Regulations 2010 (ASHW 2010).1 In the baseline 2010 study, every child care licensing document that regulated center-based care, large or group family child care homes, and small family child care homes was reviewed and rated for the strength of regulatory text supporting or conflicting with 47 ASHW indicators, or healthy weight practices (HWPs). The subsequent ASHW update studies explored regulatory changes made by states during the calendar year that had effects upon HWPs in licensed early care and education (ECE) programs.

ASHW indicators identify HWPs in ECE programs in the domains of Infant Feeding, Nutrition and Physical Activity/Screen Time. The indicators were derived from the HWPs in Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education *Programs*, 3rd Edition<sup>2</sup> (*CFOC3*). More specifically, the indicators are drawn from the subset of CFOC3 standards presented in the special collection publication Preventing Childhood Obesity in Early Care and Education: Selected Standards from Caring for Our Children: National Health and Safety Performance Standards (PCO),<sup>3</sup> and a later revision, PCO2.4 (See Appendix A. Source of ASHW Indicators in PCO2/CFOC3 Standards.) The box to the right, Previous ASHW Assessments: 2010 -2015, displays key findings of the preceding reports, each of which may be accessed in its entirety at <a href="http://nrckids.org/ASHWarchive.html">http://nrckids.org/ASHWarchive.html</a>.

With some exception depending upon specific datasets and timeframes examined, <sup>5</sup> epidemiological reports since 2010 indicate that the pediatric obesity epidemic has plateaued or declined, particularly among young children. <sup>6,7</sup> Racial, ethnic and income discrepancies in pediatric obesity prevalence seem to persist however. <sup>8,9,10</sup>

Recent reviews of the role of child care as a contributor to pediatric obesity reported mixed results in associating out-of-home care with the later likelihood of obesity, 11,12 once potentially confounding factors are controlled. 13,14

#### **Previous ASHW Assessments: 2010-2015**

The following table identifies key aspects and findings from previous ASHW assessments. (See <a href="http://nrckids.org/ASHWarchive.html">http://nrckids.org/ASHWarchive.html</a>)

#### ASHW 2010 & ASHW 2011

- 2010 baseline study rated all states' regulations for HWPs in Nutrition, Infant Feeding, & Physical Activity/Screen Time
- In both 2010 & 2011:
  - o No care type was substantially better regulated for HWPs than the others
  - Only 13% of all ratings nationally indicated regulations fully consistent with HWPs
  - More than half of all ratings indicated that no HWP text (nor contradictory text) was identified
  - Physical Activity/Screen Time was the least regulated domain (67% of ratings showed indicators were not addressed)
  - $\circ\,$  Leading states (regulations with strongest HWPs) were DE & MS
- Three states (AZ, AR & ND) enacted 2011 regulatory changes—90% of these 2011 new/revised regulations rated for ASHW improved HWPs

#### **ASHW 2012**

- 12 states (CA, CO, FL, IA, KS, MD, NV, NM, NC, TX, WA & WY) enacted regulatory changes—92% of these 2012 new/revised regulations rated for ASHW improved HWPs
- 15% of all ratings nationally indicated regulations fully consistent with HWP
- Physical Activity/Screen Time HWPs remained largely unregulated
- Child and Adult Care Food Program (CACFP) guidelines were newly consistent with 2 indicators:
  - $\circ\,$  Serve 1% or skim milk to children 2 and older—30 states assigned higher ratings
  - o Make water available both inside and outside—25 states assigned higher ratings
- · Leading states were DE, MS

#### **ASHW 2013**

- 10 states (FL, KS, KY, MS, NE, NJ, NC, ND, RI & WY) enacted regulatory changes—94% of these 2013 new/revised regulations rated for ASHW improved HWPs
- 16% of all ratings nationally indicated regulations fully consistent with HWPs
- Physical Activity/Screen Time HWPs remained least regulated
- COPR scores, weighted summary scores, were introduced for comparisons of states regulations and treatment of indicators
- Leading states were DE, MS, NC & RI

#### **ASHW 2014**

- 7 states (GA, IL, MI, NM, NY, TX & WV) enacted regulatory changes —100% of these 2014 new/revised regulations rated for ASHW improved HWPs
- 17% of all ratings nationally indicated regulations fully consistent with HWPs
- Most improved HWPs were ensuring infant tummy time and prohibiting feeding juice to infants
- Physical Activity/Screen Time HWP remained largely unregulated
- Leading states remained DE, MS, NC & RI
- 23 states' regulations related to HWP were unchanged (were not updated) since 2010

#### **ASHW 2015**

- 6 states (AR, CO, DE, LA, MD & NY) enacted regulatory changes—94% of these 2015 new/revised regulations rated for ASHW improved HWPs
- 17% of all ratings nationally indicated regulations fully consistent with HWPs
- Most improved HWPs were, for children two and older, serving low-fat milk and using screen media only for educational and physical activity purposes
- Leading states remained DE, MS, NC & RI
- 23 states' regulations related to HWP remained unchanged (were not updated) since 2010
- For the first time, physical activity/screen time was the domain with the most change compared to infant feeding and nutrition

Nonetheless, ECE programs organize the daily routines of millions of children and thereby substantially influence their dietary and caloric intake, physical activity and exposure to screen media. Evidence regarding the importance and implementation effects of HWPs for Infant Feeding, Nutrition and Physical Activity/Screen Time therefore may help inform and support the regulatory infrastructure that sets minimum requirements for the licensed ECE programs, and their potential to influence obesity in early childhood. 15,16,17

The most recent pediatric obesity literature since the prior ASHW study, *ASHW 2015*, continues in large part to affirm the importance of the *CFOC3*-based HWPs assessed in the ASHW studies. The literature also continues to accrue documentation of the degree to which ECE programs are, or are not, consistent in implementing HWPs, as described below.

#### **Infant Feeding**

Two large scale literature reviews were published in 2016 that addressed infant feeding practices:

- In one examination of obesity risk factors in the first 1,000 days of life (from conception through age two years), only about 5% of nearly 6,000 related studies met the authors' inclusion criteria for consistent measurement and low risk of bias. Maternal/prenatal factors, infant weight at birth, and early accelerated weight gain emerged as risks for pediatric obesity in the included studies. <sup>12</sup> Among other potential risk factors inconsistently identified were attendance at child care, early introduction of solid food, and allowing an infant to fall asleep with a bottle. Outcomes of breastfeeding were mixed, as 23 of 49 reviewed studies cited a protective effect of breastfeeding, while the remainder did not support the association.
- In contrast, another recent literature review cited evidence linking early childhood obesity with shorter breastfeeding duration.<sup>11</sup>

Individual recent investigations of early risk factors supported the protective effect of breastfeeding, but weakened the case for avoiding early introduction of solid food:

- Infants who were breastfed for less than two months were more likely to exhibit a rising weight gain trajectory (high weight for length), calculated over the first 24 months of life, than those who were breastfed for more than four months.
- Breastfed children were 13% and 17% less likely, respectively, to be overweight or obese at age two, and each additional week of breastfeeding further decreased the likelihood of obesity at age two years.
- Breastfeeding for at least four months was associated in another study with less risk of obesity as late as age four.<sup>20</sup>
- Once infant, child, and maternal confounders were taken into account, the relationship between early introduction of solid foods (before age 4 months) and later obesity was not significant.<sup>21</sup>

#### **Nutrition**

Regarding nutrition practices reflected in *CFOC3*-based ASHW indicators, in sampled tribally-affiliated Oklahoma child care centers, the HWPs of reducing access to added sugar and high-fat foods were related to lower risk of overweight (as was more access to active play). 22 However, several new observational and self-report studies raise concern for substantial variability in nutrition practices and actual child dietary and caloric intake in child care programs. These findings apply even among programs participating in the USDA Child and Adult Care Food Program (CACFP), which requires adherence to CACFP Meal Patterns that designate food types and amounts for subsidized meals served in ECE program serving low income children. For example:

- A comparison of Midwest CACFP- and non-CACFP-participant child care programs demonstrated that
   CACFP programs followed somewhat more CFOC3-based nutrition practices than non-participant
   programs. The CACFP programs reported significantly
   more often that they served whole grains daily and that
   children and caregivers consumed the same foods.
   However, caregivers in both CACFP and non-CACFP
   programs consumed sugar-sweetened beverages in
   the presence of children.<sup>23</sup>
- More than 100 Rhode Island child care directors were queried about the preceding day's menu in a survey study. Those leading CACFP-participant programs reported serving more legumes, fruit, 100% fruit juice, non-fat milk, and water than directors of non-CACFP programs, but the numbers of programs of either type that had served fruits and (non-potato) vegetables were low.<sup>24</sup>
- Connecticut child care programs, children's measured intake of vegetables, milk and dietary fiber was inadequate, whereas their intake of meat, grains, saturated fat, and sodium exceeded recommendations. Similarly, preschoolers (3–4 years old) in 108 low income New York City child care centers consumed low volumes of vegetables and whole grains, but very high levels of saturated fats and added sugars.

In addition to the types and quantity of foods served, caregivers' own mealtime behaviors may influence child nutrition:

- Using the Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC), an observational study in 30 Ohio child care centers, 83% of which were CACFP-participants, found that few caregiver mealtime best practices were reliably implemented. Children ate more vegetables when staff consumed the same food and when staff sat with them during meals,<sup>27</sup> two ASHW indicators.
- The majority of more than 300 teachers/caregivers surveyed in various ECE settings, including Head Start, child care centers and family child care homes, reported that they avoid: screen time during meals,

consuming unhealthy food and beverages in the presence of children, and use of food to influence behavior. Most also had received relevant training. Although the majority of those surveyed did not eat the same foods as children, differences among program types were observed. That is, Head Start and center program staff were more likely than were family home care providers to eat the same food as children and to model healthy eating, and less likely to misuse food (e.g., use food as a reward) with children.<sup>28</sup>

- In a small qualitative exploration of caregiver attitudes towards controlling feeding practices (e.g., pressuring children to eat, using food as a reward or bribe), some caregivers regarded controlling feeding practices as an effective tool for encouraging feeding or behavior management. Others reported the practices were ineffective, unnecessary, or prohibited by program nutrition policies, and/or cited potentially adverse implications for the children's health and weight. The emergent themes led to author recommendations for the education of caregivers regarding the negative outcomes of controlling feeding practices.<sup>29</sup>
- Teacher training and technical assistance in a CDC-funded program to influence implementation of nutrition and other healthy weight policies in Miami-Dade County in Florida resulted in food and beverage changes. These changes included serving less whole milk, juice and unhealthy food (junk food), and serving more 1% milk and fresh vegetables.<sup>30</sup> (See similar positive changes for physical activity and screen time below.)

Collaboration of child care programs with families is an important additive strategy for success in pediatric obesity prevention interventions,<sup>31</sup> particularly, as:

- Children attending full-time ECE programs were found to consume a disproportionately high number of calories outside of the child care program, but also to have fewer servings of milk, fruit and vegetables than recommended when away from ECE programs. Child care providers' efforts to engage parents may impact such discrepancies and promote healthier eating.<sup>32</sup>
- A recent nutrition communication program with families, intended to encourage healthier home-packed lunches, had mixed results showing some progress and some intransigence. Inclusion of whole grains, fruits and vegetables in packed lunches improved, although vegetable portions remained low and inclusion of sweets and chips remained excessive.<sup>33</sup>

#### **Physical Activity and Screen Time**

Research into physical activity has intensified since *ASHW 2010*, although the actual status of young children's activity and the implementation of HWPs for physical activity in ECE programs remain concerning. For example, the *Report Card on Physical Activity for Children and Youth* gives a dismal account of physical activity among America's children and adolescents, delivering an overall grade of D
34 Few of the measures employed in the report include

children as young as two years of age, so that younger children factor minimally in this assessment from public data. *CFOC3* standards recognize that physical activity may be initiated in infancy and continued throughout the preschool years in child care, as reflected in the ASHW indicators. However, a 2016 scoping review of 20 studies found inconsistent measurement and conflicting outcomes in examination of physical activity through age two years.<sup>35</sup>

Authors of one of the few studies describing an intervention with families to increase infant tummy time and decrease use of restrictive equipment reiterated the difficulty of measurement of infant physical activity. In their intervention with low-income Hispanic families, mothers facilitated only low amounts of infant tummy time and unrestrained floor time, and infants commonly were placed in movement-restricting equipment. Many families were unaware of the importance of tummy time. When practiced, unrestrained floor play rarely occurred as recommended on hard surfaces.<sup>36</sup> The low frequency of infant physical activity practices among Hispanic families reported in this study is consistent with earlier findings, <sup>37</sup> reinforcing the need for child care programs servings these families to implement tummy time and communicate to families the importance of early opportunities for physical activity.

In a 2016 systematic review of studies of physical activity through preschool age, only 6% of more than 120,000 studies met inclusion criteria. The review findings supported the correlation of time spent outdoors with the total amount of physical activity (but not specifically with moderate-to-vigorous activity). Findings also supported a positive association of child participation in ECE programs with both total physical activity and moderate-to-vigorous physical activity. <sup>38</sup> However, findings from other reviews and studies conflict with the report of more physical activity in child care. For example:

- A sample of Australian preschool children was recently determined to be significantly less active during time spent in ECE programs than during waking hours out of care, as measured by accelerometers.<sup>39</sup>
- An observational study, with objective measurement of physical activity and location (i.e., using accelerometers and GPS technology), monitored Latino preschoolers for eight hours per day for a week. Of all settings monitored (home, child care/school, playgrounds/parks, other community settings), activity was lowest in Child care/school settings. That is, children were least active, had the least outdoor time, and engaged in the most sedentary behavior while in child care. When playing outdoors, particularly in parks and playgrounds, children were substantially more likely to engage in moderate-to-vigorous physical activity.<sup>40</sup>

*CFOC3* recommends daily outdoor physical activity in ECE programs (see Standard 3.1.3.1 - Active Opportunities for Physical Activity). However, programs may have difficulty meeting this standard, despite caregiver and family attitudes supporting its importance.

 A large-scale survey in Washington State investigated the degree to which the physical activity practices

in licensed child care centers and family child care homes, serving children ages two to five years, met *CFOC3*-based recommendations for total physical activity time. With responses from nearly half of centers and a third of homes, few (12% of centers and 20% of family child care homes) met the best-practice standards. Time spent outdoors emerged as the best predictor of meeting the standards for time spent in physical activity, but caregiver/teacher-led activity also was important.<sup>41</sup>

- In a small exploratory investigation of parents' attitudes towards physical activity and outdoor play, parents wanted child care programs to offer their preschoolers substantially more time than the CFOC3-recommended minimum for outdoor play. The majority (62%) were uninformed about actual practice in their children's programs and many were uninformed about program policies for outdoor play. The majority of parents did not regard inclement weather (cold, rain or snow) as sufficient reason to prevent children from playing outdoors), and fewer than 10% each felt either too rushed to send appropriate clothing for outdoor play, or fearful that their child would be injured during outdoor play. Such issues were previously reported by providers as parental barriers to outdoor play. 43,44
- A larger survey study that examined attitudes about physical activity and outdoor playtime for preschoolers found that parents and child care providers both regarded physical activity as important. Parents regarded outdoor play as somewhat less important than caregivers did, and were more concerned about risk of illness with outdoor play in cold weather, although only 11% reported this concern. Concerns cited by some families for safety of outdoor play in their home neighborhoods reaffirmed the importance that young children have physical activity in child care. 45

As in nutrition practices, research supports the importance of caregiver behavior with children as influential in the level of physical activity in ECE programs, as in the Washington State study cited above. 41 Of note then, are recent studies that address caregiver/teacher preparation for and involvement in physical activity implementation in ECE programs:

- A North Carolina intervention to increase physical activity in child care programs found that teacher training increased child physical activity and was most effective when activities were teacher-led.<sup>46</sup>
- In Wisconsin, seven family child care homes and 13 group child care homes received on-site training and technical assistance to improve physical activity through teacher-led activity over 12 months. Teacher-led physical activity and measured child physical activity (using accelerometers) increased significantly.<sup>47</sup>
- The Miami-Dade County program for teacher training and technical assistance (cited earlier) also saw successful effects in in the implementation of a CFOC3-based Physical Activity Policy and a Screen

Time policy such that outdoor physical activity increased.<sup>30</sup>

Despite the increasing proliferation of screen and digital media devices and the trend for increasingly younger age of exposure, 48 there is a relative scarcity of investigations on media use with children. 49 However, new studies reinforce awareness of the magnitude of exposure and potential negative effects of screen and digital media time on young children:

- Use of mobile electronic devices was associated with sleep disturbances among three-to-five year-old children of predominantly college-educated parents, as reported in an online survey. Estimates of children's daily exposure to media were calculated. The approximate daily average of total television time was 228 minutes. With a focus on bedtime sleep and the effects of screen and digital media, the average evening exposure to media included evening television viewing for 77 minutes (part of the total time reported above), as well as average evening exposures to other devices of: 23 minutes for tablets, 7 minutes for smartphones, 9 minutes for handheld game playing devices, 8 minutes for laptop use, and 3 minutes for iPod use. Television time (total and during evenings) significantly related to all sleep disturbance measures. When controlling for television time, increasing tablet use was associated with greater bedtime resistance and shorter sleep duration, and was weakly associated with daytime sleepiness.50
- Young children's exposure to child-targeted high-sugar breakfast cereal television advertisements and consumption of advertised products was recently investigated using parent reports of television channels viewed, viewing time, and cereal consumption, as well as advertisement monitoring. More than 40% of the children of participating parents were exposed to targeted advertising for the high sugar products. For every 10 targeted ads to which they were exposed in a week, children consumed 14% more of the sweetened cereal brands.<sup>51</sup>

The very limited recent research on screen time and media exposure in ECE programs showed some promise, as:

- Teacher training and technical assistance successfully decreased screen time exposure in the previously-cited Miami-Dade County outreach program.
- Canadian parents' reports of their toddlers' media use (including television viewing and video/computer games) were generated via questionnaire at 18-month immunization appointments. The principal type of child care was related significantly to screen exposure in both simple and multiple linear regression models. Toddlers in any child care setting had less video game and computer use than children in parental care, while those in child care centers had less television time than children in other care (family child care homes, parental or other-adult care). Those cared for in center

programs received an average of nearly an hour less per day of screen time than those under parental care.  $^{52}$ 

Finally, the recent child care literature provides new information about differences in care types, including some discrepancies related to family child care homes--settings many families find appealing and accessible for the care of their children, and that often serve low income and vulnerable families.

- A survey conducted among more than 800 centerbased and family child care home ECE providers in Minnesota and Wisconsin assessed nutrition and physical activity policies and practices [several of which were ASHW indicators], as well as barriers to their implementation. Most home-based providers participated in CACFP, as did almost half of center providers. On average only a modest number of nutrition (7 of 15) and physical activity (5 of 10) practices surveyed were implemented, with centers implementing approximately one more practice in each area than home-based providers. Except for staff sitting with children and eating the same food, most providers responded that it would not be difficult to implement the practices. Barriers to instituting nutrition practices were cost, time and storage space, with children's dislike of healthy foods cited by about 40% of home-based and 20% of center respondents. Physical activity barriers were weather-related, cost of equipment, and indoor space constraints, while parents' provision of inadequate clothing was also cited (by 30%).53
- A focus group study of Massachusetts Latino licensed family child care home providers explored their attitudes and practices regarding nutrition, physical activity and sedentary behavior, and influence on the related behaviors of children, among other topics. Providers prioritized healthy diets, using resources such as *Minute Menu* software (affiliated with CACFP) to plan food service and shopping. They reported that the meals they serve are healthier than family meals. as parents often allowed unhealthy foods. They also took seriously communication with and education of families and children about healthy eating, modeling healthy eating behaviors and introducing new foods. They were similarly supportive of physical activity (some even making home modifications to provide adequate space for active movement), and agreed that they limited screen time. However, several cited allowing as much as an hour a day of television (preferably educational shows). Barriers to HWPs included costs of fresh and organic foods, and inadequate interior space and cold temperatures limiting indoor and outdoor physical activity. Authors cite the resources of CACFP in particular as especially important in supporting providers' nutrition practices. There was more variability in understanding of physical activity practices, and little reference to the importance of modelling or caregiver-led activity.54

Health status was examined in a sample of mostly (74%) African American family child care home providers in North Carolina, 91% of whose homes participated in CACFP, and more than half of which were designated as high quality programs in the state's quality improvement rating system. Providers selfreported their health insurance, weight, physical activity, fruit and vegetable consumption, sleep, and stress status. Most providers (90%) were overweight and the majority experienced high stress. Nearly half of providers had insufficient physical activity, sleep and consumption of fruits and vegetables. Nearly 30% lacked health insurance. The authors cited the importance of staff health [a topic in CFOC3] standards], and raised questions regarding modeling healthy behaviors and effects on the health outcomes of children in care.55

Family child care home providers face unique challenges in caring for multiple children, often spanning a wide range of ages, with sole responsibility for operating a small business with limited resources that often culminate in personal health concerns. In response, a promising new clinical trial was described in the child care literature. Keys to Healthy Family Child Care Homes (Keys) is a multicomponent obesity prevention intervention focused on family child care homes that is customized to meet the special challenges of training, implementing new practices and measuring outcomes in these small business environments. The program includes a self-assessment, workshop, home visit and coaching sessions, delivered to a home over a nine-month period. The intervention group in the randomized controlled trial receives content to: help providers address their own behaviors related to weight, so that they may serve as role models for children; create a home environment supportive of healthy eating and physical activity; and, improve business practices. Homes in the control group will receive training in the business practices only. A wide range of ambitious, objective measurements are conducted by observers on-site. Such variables are measured as provider diet, foods and beverages served and consumed by children, and child and provider anthropometric and accelerometer measurements, as well as nutrition and physical activity environmental variables (e.g., policies and practices). The three-year study will be conducted with 150 family child care homes in North Carolina.56

Within the context of such emerging evidence and developments, states introduced new and revised child care licensing regulations in 2016. The findings of *AHSW 2016*, follow, presented in a series of tables, charts and maps. The reader is encouraged to further explore the status of regulations of individual states for center, large or group family homes, and small family child care homes in the accompanying *ASHW 2016 Supplement*.

## **METHOD**

The ASHW study methodology, as developed in 2010 and used in each annual assessment to date, includes the following essential steps:

- Identification of new and revised documents.
   Documents were identified through phone/email contact with all states' licensing agencies and monitoring of states' child care licensing websites.
- 2. Screening of documents for content pertinent to obesity prevention. New documents were screened for key search terms related to the study indicators. Revised documents were compared with the version examined for ASHW 2010, using Adobe® Acrobat® X Pro. Revised documents were searched similarly for terminology related to HWPs, using advanced Boolean search methods. (See Appendix C: State Documents Searched: 2016.) Table 1, Assessment Years for Each State (below), displays years in which each state's regulations were rated, for the 2010 baseline study and thereafter as new or revised rules pertinent to ASHW indicators were made effective, 2011-2016.
- Training of the rater dyad for high inter-rater reliability. A new rating team, consisting of an experienced and a new rater, achieved high interrater reliability for ASHW 2016 (r<sub>s</sub> > . 0.99).
- 4. Rating of pertinent documents and data entry. Two raters independently rated each document on the 47 indicators, using a set of indicator-specific guidelines to assign values on a four-point scale (1 to 4) in which, ratings of:
  - 0 = State does not regulate child care type
  - 1 = Regulation contradicts the standard
  - 2 = Regulation does not address the standard
  - 3 = Regulation partially meets the standard
  - 4 = Regulation fully meets the standard

Data generated by each rater were entered into NRC's ASHW database (in Microsoft ACCESS).

- Resolution of discrepant ratings. The text each rater recorded as the basis for the numerical rating was reviewed by the raters with the NRC Evaluator to resolve the few differences in assigned values.
- Establishment of "final ratings." A single score for each indicator for each regulated care type was assigned in cases where multiple documents regulate a given care type in a state (see ASHW 2010).
- 7. Data analysis and exportation to Excel (for further analysis and generation of charts and graphics). In 2013, the NRC introduced Childcare Obesity Prevention Regulation Scores, or COPR Scores, which are weighted summary scores that facilitate comparisons of ratings across states and across indicators. In 2015, a modification was made to the

COPR formula, as described later, to enhance the readability of charts using the calculations.

New ratings from six states that made regulatory changes in 2016 were made to the cumulative ASHW national database, as was a correction to eliminate a pair of mistaken California 2010 ratings for large and small family child care for the variable ID2 (serve whole fruit, mashed or pureed, for infants 7 months to 1 year of age). California did not regulate these care types in 2010. The impact upon the national data of the removal of these erroneous ratings was imperceptible. The correction is reflected in the California state pages in the 2016 Supplement.

# Calculation of Childcare Obesity Prevention Regulation Scores (COPR Scores)

COPR Scores summarize the strength of regulatory language across all child care types that states choose to regulate. COPR Scores are calculated to assess the strength of:

- · Each state's body of child care regulations;
- The national body of child care regulations (i.e., the states cumulatively);
- Each ASHW indicator (i.e., each healthy weight practice) across all states' rules that pertain to the specific indicator.

The equation for calculation of COPR Scores is based on the assumptions listed below:

#### **Assumptions in COPR Score Computation**

- ASHW ratings = 1 (regulations that contradict the standard) are weighted "-1," as they weaken regulatory promotion of healthy weight.
- ASHW ratings = 2 (missing, i.e., regulations do not address the standard) are weighted "0" as they don't contribute to promotion of health weight.
- ASHW ratings = 3 (regulations partially meet the standard) are weighted "+1," as they somewhat strengthen promotion of healthy weight.
- ASHW ratings = 4 (regulations fully meet the standard) are weighted "+2," as they fully promote healthy weight.

Thus, COPR Scores are the sum of weighted ratings of regulations that either strengthen or weaken rules about HWPs. In the formula, there is no reference to *ratings* = 2. ASHW ratings that equal "2" indicate that no content was found to contribute positively or negatively to the strength of the regulations, so they are weighted "0." No matter how large or small the proportion of *ratings* = 2 in the total number of ratings, when multiplied by the weight of "0," they always contribute "0" to the sum. The possible range of

## **METHOD**

COPR Score values as computed in 2013 and 2014 was -1 to +2. This narrow range resulted in data displays that were very compressed and hard to read. To enhance the readability of charts of the COPR Scores for national-, state-, and indicator-level data in 2015, the computation of COPR scores now includes a multiplier of 50, as shown in the formula box.

Therefore, theoretically, if a state's regulations contradicted all 47 HWPs, 100% of the ASHW *ratings* = 1. When entered into the COPR Score formula, the outcome would be a score of "-1 x 50 (the constant multiplier)" or

"-50." In contrast, were a state's regulations fully consistent with HWPs, 100% of ASHW ratings = 4, the resulting COPR score would be "2 x 50" (the constant multiplier) or, "100"). Similarly, for indicators, if a given HWP was rated "4" in every state, the outcome would be a COPR Score of "2 x 50" (the constant multiplier), or "100." Therefore, COPR Scores = 100 are the goal both for states and for indicators, which signifies maximizing the capacity of early childhood education as a resource to support children's healthy weight.

The COPR Scores are calculated for 2016 by applying the following formula:

$$\textbf{\textit{COPR Score}} \ = \left( \left( \frac{\textit{No.ratings} = 1}{\textit{Total no.ratings}} \times -1 \right) + \left( \frac{\textit{No.ratings} = 3}{\textit{Total no.ratings}} \times 1 \right) + \left( \frac{\textit{No.ratings} = 4}{\textit{Total no.ratings}} \times 2 \right) \right) \times 50$$

## **METHOD**

Table 1. Assessment Years for Each State (all states at baseline, and updated ratings when states made pertinent changes to their licensing regulations)

			Y	ear F	Rated					١	ear l	Rated			
	2	2	2	2	2	2	2		2	2	2	2	2	2	2
State	0	0	0	0	0	0	0	State	0	0	0	0	0	0	0
State	1	1	1	1	1	1	1	State	1	1	1	1	1	1	1
	0	1	2	3	4	5	6		0	1	2	3	4	5	6
Alabama	Х		Х					Montana	Х		Х				
Alaska	Х		Х					Nebraska	Х		Х	Х			
Arizona	Х	Х						Nevada	Х		Х				
Arkansas	х	Х				Х		New Hampshire	Х						
California	Х		Х					New Jersey	Х			Х			
Colorado	Х		Х			Х	Х	New Mexico	Х		Х		Х		
Connecticut	Х		Х					New York	Х				Х	Х	
Delaware	Х		Х			Х		North Carolina	Х		Х	Х			
District of Columbia	Х						Х	North Dakota	Х	Х	Х	Х			
Florida	х		Х	X				Ohio	Х		Х				Х
Georgia*	Х		Х		Х			Oklahoma	Х						Х
Hawaii	Х		Х					Oregon	Х		Х				
Idaho	Х							Pennsylvania	Х						
Illinois	Х				Х			Rhode Island	Х		Х	Х			
Indiana	X							South Carolina	Х		Х				
lowa	Х		Х					South Dakota	Х						
Kansas	Х		Х	Х				Tennessee	Х						
Kentucky	Х			Х				Texas	Х		Х		Х		
Louisiana	Х		Х			Х		Utah	Х		Х				
Maine	Х		Х					Vermont	X						Х
Maryland	Х		Х			Х		Virginia	Х		Х				
Massachusetts	Х		Х					Washington	Х		Х				
Michigan	Х		Х		Х			West Virginia	Х		Х		Х		
Minnesota	Х		Х					Wisconsin	Х		Х				
Mississippi	Х		Х	Х				Wyoming	Х		Х	Х			
Missouri	Х						Х								

Legend:	Х	Baseline Rating in 2010 (all states, all regulated child care types, all variables)
	Х	Assessed new or changed rules in year indicated
	Х	Changed ratings due ONLY to automatic application of CACFP changes
	Х	Assessed new or changed rules and revised 2010 baseline ratings due to retirement of MyPyramid
		Revised 2010 baseline ratings only due only to retirement of MyPyramid

<sup>\*</sup>Georgia 2016: In October 2016, Georgia updated *Rules for Child Care Learning Centers Chapter 591-1-1*. The document was screened for *ASHW 2016*, but revealed no new text that changed the ratings of content related to ASHW indicators. The revised document newly specified a lower threshold of seven as the number of children to be cared for in a "Child Care Learning Center" or "Center." This chapter of Georgia regulations now covers programs previously regulated as Group Day Care Programs. *The Rules and Regulations, Group Day Care Homes, Chapter 290-2-1* (last updated March 16, 2014) have been removed from the Georgia Department of Early Care and Learning website (<a href="http://decal.ga.gov/CCS/RulesAndRegulations.aspx">http://decal.ga.gov/CCS/RulesAndRegulations.aspx</a>). Thus, the care of children formerly in Group Day Care Programs continues to be regulated, but under the rules for center-based programs.

The previous Group Day Care regulations and the 2016 Center regulations were substantially consistent. The rating of only one ASHW variable differed: IA1-Encourage and support breastfeeding and feeding of breast milk by making arrangements for mothers to feed their children on-site. IA1 was previously rated "3" for large/group family child care, but in 2016 has been re-assigned a rating of "4," consistent with the Georgia center rating. The ratings for the remaining 46 ASHW indicators were identical for the center and the large/group family child care regulations. The Georgia State Profile page in the 2016 Supplement continues to show both center and large/group family child care ratings, so that readers may view the consistent ratings. In 2017, the large/group family child care column will have ratings removed, and those ratings will be deleted from the ASHW national ratings database."

## **RESULTS**

ASHW 2016 findings are presented in four sections: National Overview, New and Revised Regulations, Status of States, and Status of Healthy Weight Practices.

## **RESULTS: Key Findings 2016**

Key findings from the 2016 assessment are identified below, along with the locations where the data are displayed.

#### **National Overview**

- Since 2010, full support of HWPs has increased, from 12% (in 2010) to 18% (2016), and partial support of HWPs increased from 31% to 34% (2010 to 2016). That is a 9% improvement, from 43% to 52% of regulations that at least partially support HWPs (see Figure 1, p. 10).
- Regulations that contradict HWPs remain relatively constant at 4% (Figure 1, p. 10).
- Among child care types, small family child care homes continue to be less regulated in support of HWPs (48%) than centers and large/group family homes (≥ 52%) (Figure 2, p. 10).

#### **New and Revised Regulations**

- In 2016, 6 states (Colorado, District of Columbia, Missouri, Ohio, Oklahoma, and Vermont) enacted regulatory changes affecting HWPs (Table 2, p. 11)—85% of these changes strengthened obesity prevention, but 15% weakened support (Table 4, p. 11).
- Ranking 2<sup>nd</sup> least supportive "state" in 2010, the District of Columbia made substantial improvement in support of HWPs in 2016 (Table 4, p. 11; Figure 5a, p. 13). 12 HWPs now are supported fully across all three care types (Appendix B, p. 26).
- 12 HWPs also are supported fully across all three care types in Vermont, with the 2016 changes (see Appendix B, p. 26).

#### **Status of States**

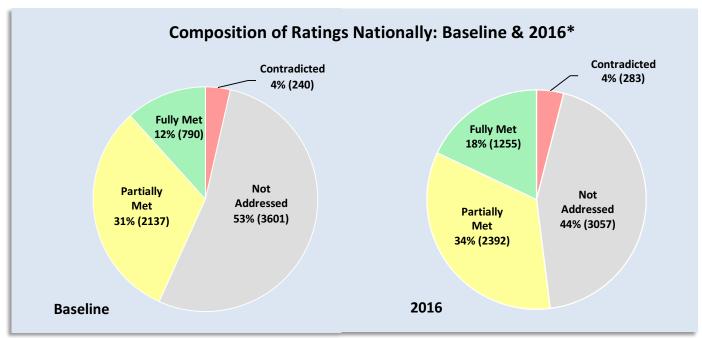
- Since 2010, 31 states have made regulatory changes affecting HWPs (p. 11, Table 3).
- The top five states leading the nation in regulation of HWPs remain: Delaware, Mississippi, North Carolina, Rhode Island & Colorado (Figure 4, p. 12).
- The five most improved states since 2010 are the District of Columbia, North Dakota, Vermont, and New Jersey (Figures 5a & 5b, p. 13-14).
- The majority of states (43) contradict at least one HWP (Figure 7, p. 16).

### **Status of Healthy Weight Practices**

- Three practices remain frequently contradicted: avoid sugar (NG2), serve no juice before 12 months of age (ID3), and serve mashed/pureed whole fruit to infants, age 7 months – 1 year (ID2) (Figure 8, p. 17).
- The most improved HWPs since 2010 remain serve low-fat milk from age 2 (NA5) and make water available inside and outside (ND1), due to CACFP changes (Figure 9, p. 18).
- More than half of the states do not regulate 1 of 11 Infant Feeding, 6 of 21 Nutrition, and 9 of 15 Physical Activity/Screen Time HWPs (Appendix D, pp. 30-32).

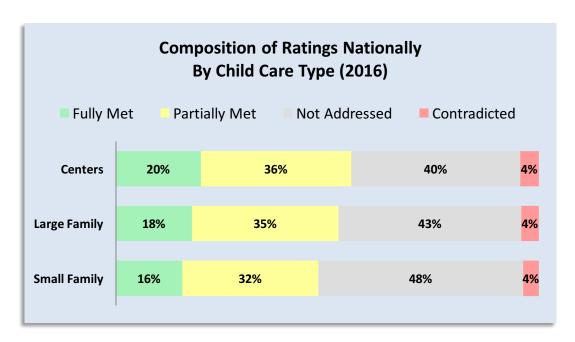
## **Results: National Overview**

Figure 1
As seen in Figure 1, changes nationwide since 2010 in child care licensing regulations now either fully or partially support more healthy weight practices (HWPs). However, the percentage of regulatory text that contradicts HWPs remains stable at 4%.



<sup>\*</sup> Total pool of ratings of regulations across all states and all of their regulated child care types. (Baseline 2010 N=6768, 2016 N=6987.)

Figure 2
Figure 2 (below) shows that, among the three care types examined, the fewest child care licensing regulations affecting HWPs are in place nationwide for small family child care programs.



## Results: New and Revised Regulations

Table 2

States with	New R	atings in	2016
STATE	CTR	LRG	SML
Colorado	Χ		
District of	Χ	Х	Χ
Columbia			
Missouri	Χ	Χ	Χ
Ohio	Χ	Χ	Χ
Oklahoma	Χ		
Vermont	Χ	Χ	Χ

Table 3

	Cumulative C	hanges in ASHW: 20	10-2016
YEAR	No. of States	No. +	No
2011	3	55 (3 states)	6 (3 states)
2012	12	115 (12 states)	10 (3 states)
2013	10	171 (9 states)	11 (3 states)
2014	7	77 (7 states)	0
2015	6	96 (6 states)	12 (2 states)
2016	6	209 (6 states)	37 (5 states)

31 states updated regulations that relate to ASHW indicators at least once since 2010.

Changes to CACFP at the federal level that took effect in 2012 automatically improved many states' ratings for indicators NA5 and ND1. These improved ratings (n=99) are not included above for 24 states that had no additional rating changes in 2012.

Table 4

The table below demonstrates that most 2016 regulatory changes were improvements that support HWPs. NOTE: For 2016

					Su	mm	ary (	of R	atin	gs Ir	npro	ovec	l an	d Lo	wer	ed i	n 20	16								
	СО	LORA	RADO DISTRICT OF COLUMBIA MISSOURI OHIO OKLAHOMA VERMONT Totals														s									
2016 Ratings	CTR	LRG	SML	CTR	LRG	SML	CTR	LRG	SML	CTR	LRG	SML	CTR	LRG	SML	CTR	LRG	SML	+	-	%					
Total Improved	23	0	0	29	33	29	1	1	1	3	5	5	13	0	0	19	24	23	209		85%					
Total Lowered	2	0	0	4	3	4	0	0	0	2	2	1	3	0	0	5	5	6		37	15%					
Improved/All	23	1	25	91	1	102	3	1	3	13	1	18	13	1	16	66	1	82								
% Improved		92%			89%		3.	100%	)		72%		G.	81%			80%									

Abbreviation Key: CTR=Centers, LRG=Large Family Child Care Home, SML=Small Family Child Care Home

Figure 3

The figure below reveals 2016 regulatory changes increased text that contradicts HWPs in the six states that made changes.

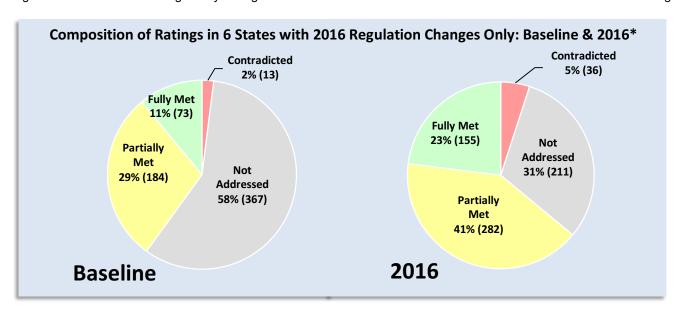
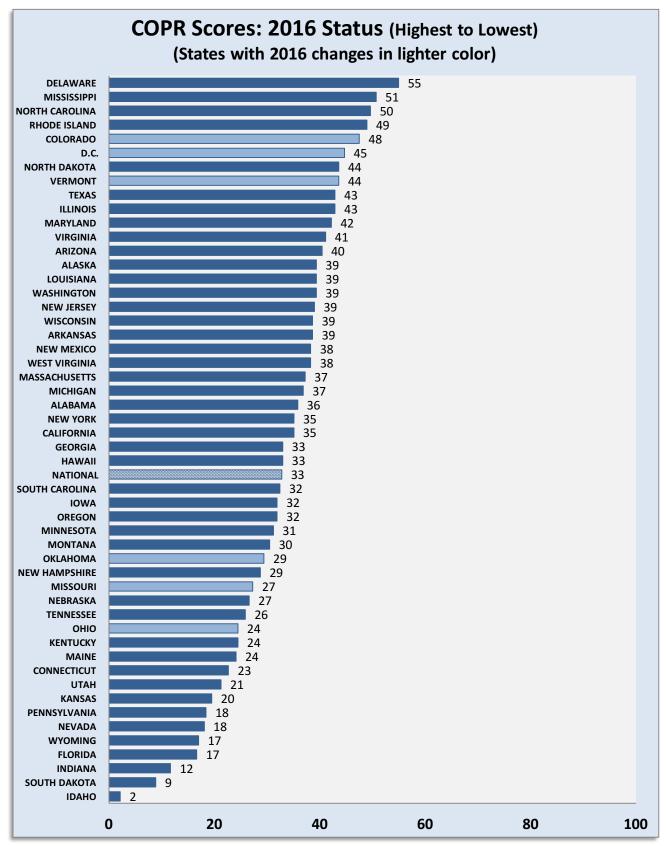
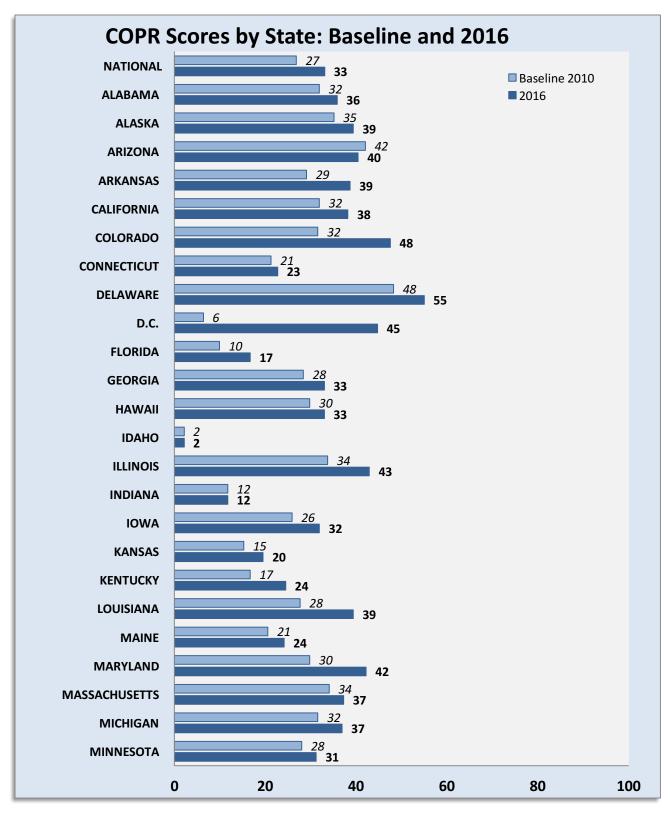


Figure 4 shows the states with child care licensing regulations that most to least (top to bottom) support HWPs.



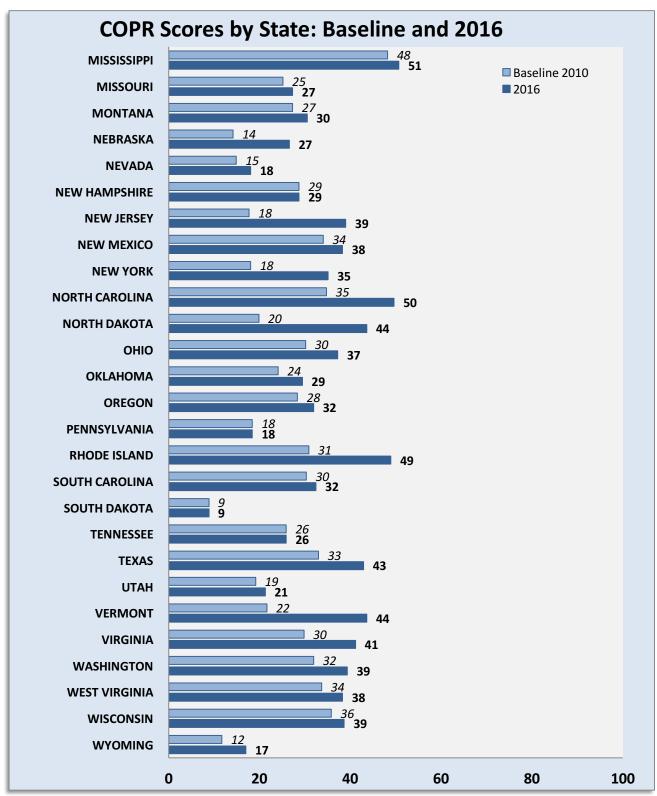
<sup>\*</sup> NOTE: See page 6 for information on the COPR score calculation

Figure 5a
Figures 5a and 5b (next page) show changes in states' child care licensing regulations that support HWPs, 2010 to 2016.



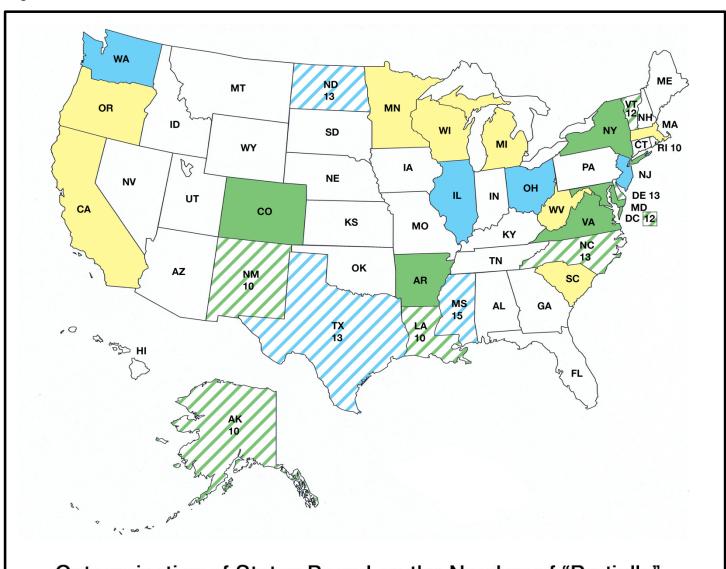
<sup>\*</sup> NOTE: See page 6 for information on the COPR score calculation

**Figure 5b**Figures 5a (preceding page) and 5b show changes in states' child care licensing regulations that support HWPs, 2010 to 2016.



<sup>\*</sup> NOTE: See page 6 for information on the COPR score calculation

Figure 6

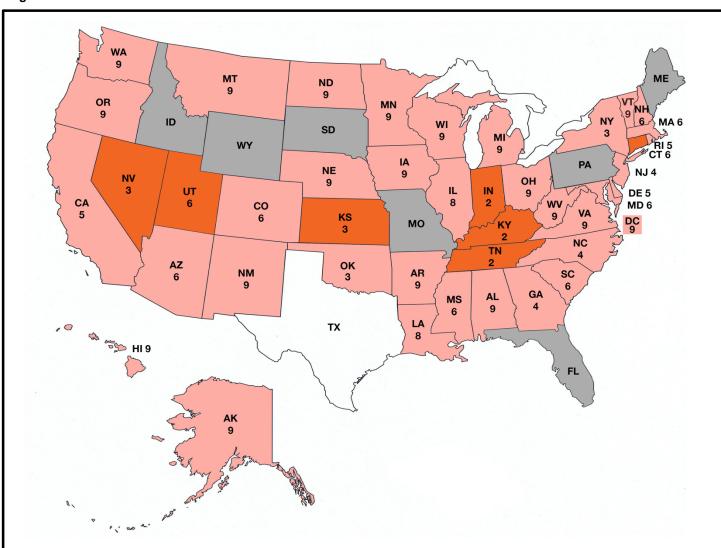


## Categorization of States Based on the Number of "Partially" or "Fully Meeting Standards" Ratings Received (2016)

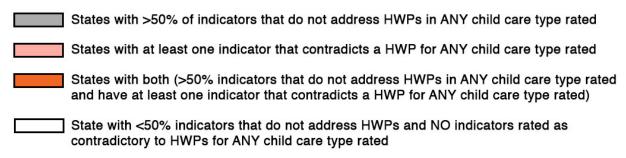
- States with >40% of indicators partially supporting HWPs for ANY child care type
- States with >20% of indicators fully supporting HWPs for ANY child care type
- States with both (>40% indicators partially supporting HWPs and >20% of indicators fully supporting HWPs for ANY child care type)
- States with >20% of indicators fully supporting HWPs for ALL rated child care types
- States with >20% of indicators fully supporting HWPs for ALL rated child care types plus >40% of indicators partially supporting HWPs for ANY rated child care type

NOTE: the numbers on the map indicate the number of indicators for which the state fully supported the HWP in ALL regulated child care types rated in this assessment.

Figure 7



# Categorization of States Based on the Number of "Missing" or "Contradicting" Ratings Received (2016)

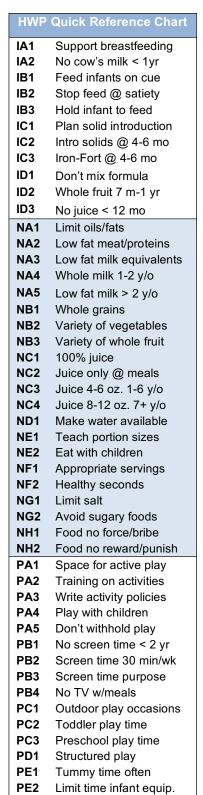


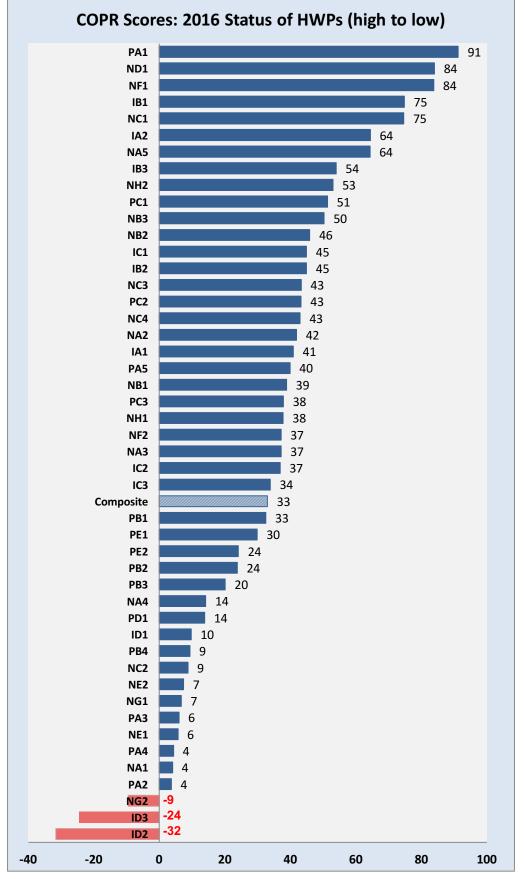
NOTE: the numbers on the map indicate the number of indicators for which the state contradicted the HWP in ANY child care type rated in this assessment.

## **RESULTS: Status of Healthy Weight Practices (HWPs)**

#### Figure 8

Figure 8 shows the most to least well-supported HWPs in child care licensing regulations across the nation in 2016.



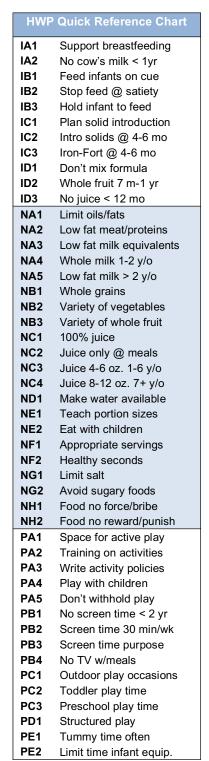


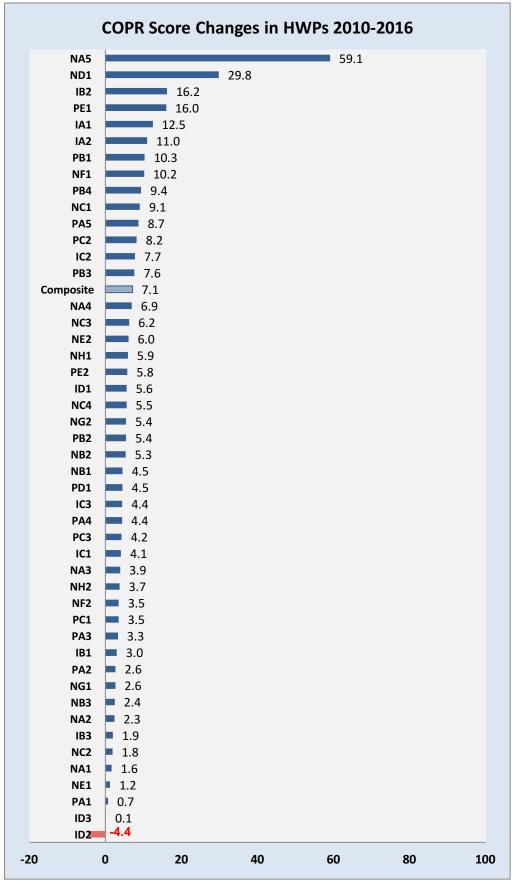
<sup>\*</sup> NOTE: See page 6 for information on the COPR score calculation

## **RESULTS: Status of Healthy Weight Practices (HWPs)**

#### Figure 9

Figure 9 shows improvement (or decline) in child care licensing regulatory support of each HWP across the nation from 2010 to 2016.





<sup>\*</sup> NOTE: See page 6 for information on the COPR score calculation

## **DISCUSSION**

Policy changes may "transform the food environment, thereby impacting overconsumption of unhealthy foods and promoting population health." For example, among school-age children, ages 10 – 17 years, it has been demonstrated that, in 2010-12, once laws were in place for a few years, states with strong legislation that limited access to unhealthy foods in schools had lower student obesity rates than other states. In fact, the difference exceeded 7%. The State-level support of HWPs in child care licensing regulations may have a similar impact upon prevention of child obesity in ECE programs.

The ASHW studies show that, gradually but increasingly, many states are enacting proactive regulation of HWPs in ECE settings. Relative to 2010, more HWPs are now regulated among licensed care types, and there is more regulatory text that is fully consistent with CFOC3 obesity prevention best practices (see the National Resource Center (NRC) for Health and Safety in Child Care and Early Education's ASHW 2016 Supplement to explore the current status of each states' regulation of HWPs). However, there remain many HWPs that are relatively unregulated across the nation (see Figure 9. COPR Scores: 2016 Status of HWPs). Most states (more than 40) have no regulations to discourage mixing infant formula with other foods or juice (ASHW indicator ID1) and many (more than half) have regulations in place that contradict best practices for feeding infants fruit and fruit juice (ID3 and 2). Nor do most (more than 40) require limiting consumption of oils and fats (NA1) or salt (NG1), or restricting juice to mealtimes (NE2). Most states (more than 40) also do not regulate important physical activity HWPs, such as: requiring written policies for physical activity (PA3), teacher training in physical activity, (PA2) and active engagement in physical activity with children (PB4). Nearly half fail to support recommended limitation of screen media exposure. (To see the number of states that have child care licensing regulations related to HWPs, see Appendix D: Degree to which Regulations Address Indicators).

The majority of changes made by the six states with 2016 child care regulatory changes (Colorado, District of Columbia, Missouri, Ohio, Oklahoma, and Vermont) were supportive of HWPs (ranging from 72% to more than 90% improvements). The highest volume of changes affecting HWPs were made by Vermont and the District of Columbia. Vermont's changes were mainly positive (i.e., 66 of 82 changes, or 80% improvements). New regulations affecting all three care types, that are fully consistent with CFOC3 best practices, were added for nine of the 47 ASHW indicators, for a total of 12 such indicators in Vermont in 2016. Most notable among the 2016 state revisions were the regulatory changes enacted in the District of Columbia (DC), which were 89% positive. They include requirements for adherence of licensed programs to the CACFP Meal Patterns and address other HWPs in infant feeding, nutrition, physical activity, and screen time. These changes results in 12 of the 47 ASHW indicators being fully consistent with CFOC3 and catapulted DC's ranking for

supporting HWPs from 50 to 6 place among states (see Figure 4).

Since many states require licensed programs to follow U.S. Department of Agriculture CACFP Meal Patterns, new Meal Patterns will have far reaching effects in ECE programs nationally. Updated Meal Patterns, revised to better align with the U.S. Department of Agriculture 2015-2020 Dietary Guidelines, were established in April 2016. Although state programs have had the option of early implementation, the revised Meal Patterns become mandatory in October 2017. Since 2010, the Meal Patterns, as rated for ASHW, have been the source of several states ratings for selected ASHW indicators in Infant Feeding and Nutrition. Once the updated Meal Patterns are mandatory, some ASHW ratings will be affected. Revised ratings will be applied to states requiring CACFP nutrition practices in licensed child care going forward.

Other ASHW changes may occur as well. CFOC3 was published in 2011.2 However, the revision of the CFOCbased infant feeding, nutrition, physical activity and screen time standards was accelerated for earlier publication in 2010 (as PCO), with the support of the U.S. Department of Health and Human Services (DHHS), Health Resources and Services Administration, Maternal and Child Health Bureau and the DHHS Administration for Children and Families. In the interim, new evidence and key policy changes have emerged that have implications for the best practices in CFOC3, including the HWPs assessed in the ASHW studies. For example, the American Academy of Pediatrics' (AAP's) Council on Communications and Media published a recent technical report and new policy statement that may influence standards related to digital media and screen time exposure. 48,60 In summer 2017, the NRC will review and revise CFOC3-PCO2 nutrition and screen time standards, 2,4 including those from which ASHW indicators are derived. The NRC will undertake this work in the context of ongoing collaboration with the AAP in the National Center for Early Childhood Health and Wellness. As the NRC engages in the CFOC3 standards review process, the team will monitor changes to standards that affect the ASHW indicators and the way they are scaled (i.e., how ratings are assigned to regulatory text). Revision of pertinent standards may influence future ASHW updates.

## **REFERENCES**

- National Resource Center for Health and Safety in Child Care and Early Education, University of Colorado Denver. Achieving a state of healthy weight: a national assessment of obesity prevention terminology in child care regulations 2010
  - http://nrckids.org/default/assets/File/Products/ASHW/regulations report 2010.pdf. Published January 2011. Accessed December 27, 2016.
- American Academy of Pediatrics, American Public Health Association, and National Resource Center for Health and Safety in Child Care and Early Education. Caring For Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs, 3<sup>rd</sup> ed. Elk Grove Village, IL: American Academy of Pediatrics; Washington, DC: American Public Health Association;2011. Available at: http://cfoc.nrckids.org/. Accessed January 30, 2017.
- American Academy of Pediatrics, American Public Health Association, and National Resource Center for Health and Safety in Child Care and Early Education. Preventing Childhood Obesity in Early Care and Education Programs: Selected Standards from Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs, 3<sup>rd</sup> ed. Elk Grove Village, IL: American Academy of Pediatrics.
- American Academy of Pediatrics, American Public Health Association, and National Resource Center for Health and Safety in Child Care and Early Education. Preventing Childhood Obesity in Early Care and Education Programs, 2nd Edition: Selected Standards from Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs, 3rd edition. Elk Grove Village, IL: American Academy of Pediatrics:2012. Available at: <a href="http://cfoc.nrckids.org/StandardView/SpcCol/Preventing Childhood Obesity">http://cfoc.nrckids.org/StandardView/SpcCol/Preventing Childhood Obesity</a>. Accessed January 30, 2017.
- Skinner AC, Perrin EM, Skelton JA. Prevalence of obesity and severe obesity in US children, 1999-2014. *Obesity* (Silver Spring). 2016 May;24(5):1116-23. doi:10.1002/oby.21497
- Ogden CL, Carroll MD, Lawman HG, Fryar CD, Kruszon-Moran D, Kit BK, Flegal KM. Trends in obesity prevalence among children and adolescents in the United States, 1988-1994 through 2013-2014. *JAMA*. 2016 Jun 7;315(21):2292-9. doi: 10.1001/jama.2016.6361.
- Dietz WH. The response of the US Centers for Disease Control and Prevention to the obesity epidemic. Annu Rev Public Health. 2015 Mar 18;36:575-96. doi: 10.1146/annurev-publhealth-031914-122415
- Cantarero A, Myers O, Scharmen T, Kinyua P, Jimenez EY. Trends in early childhood obesity in a large urban school district in the southwestern United States, 2007-2014. Prev Chronic Dis. 2016 Jun 2;13:E74. doi: 10.5888/pcd13.150594
- Dietz WH. The response of the US Centers for Disease Control and Prevention to the obesity epidemic. Annu Rev Public Health. 2015 Mar 18;36:575-96. doi: 10.1146/annurev-publhealth-031914-122415

- Guerrero AD, Mao C, Fuller B, Bridges M, Franke T, Kuo AA. racial and ethnic disparities in early childhood obesity: Growth trajectories in body mass index. *J Racial Ethn Health Disparities*. 2016 Mar;3(1):129-37. doi: 10.1007/s40615-015-0122-y
- Woo Baidal JA, Locks LM, Cheng ER, Blake-Lamb TL, Perkins ME, Taveras EM. Risk factors for childhood obesity in the first 1,000 days: a systematic review. Am J Prev Med. 2016 Jun;50(6):761-79. doi: 10.1016/j.amepre.2015.11.012
- Alberdi G, McNamara AE, Lindsay KL, Scully HA, Horan MH, Gibney ER, McAuliffe FM. The association between childcare and risk of childhood overweight and obesity in children aged 5 years and under: a systematic review. *Eur J Pediatr*. 2016 Oct;175(10):1277-94. doi: 10.1007/s00431-016-2768-9.
- 13. Isong IA, Richmond T, Kawachi I, Avendaño M. Childcare attendance and obesity risk. *Pediatrics*. 2016 Nov;138(5). pii: e20161539. doi: 10.1542/peds.2016-1539
- Swyden K, Sisson SB, Lora K, Castle S, Copeland KA. Association of childcare arrangement with overweight and obesity in preschool-aged children: a narrative review of literature. *Int J Obes* (Lond). 2017 Jan;41(1):1-12. doi: 10.1038/ijo.2016.198
- Messiah SE, Lebron C, Moise R, Sunil Mathew M, Sardinas K, Chang C, Palenzuela J, Walsh J, Shelnutt KP, Spector R, Altare F, Natale R. Healthy caregivers-healthy children (HC2) phase 2: integrating culturally sensitive childhood obesity prevention strategies into childcare center policies. *Contemp Clin Trials*. 2017 Feb;53:60-67. doi: 10.1016/j.cct.2016.12.011
- O'Neill JR, Dowda M, Benjamin Neelon SE, Neelon B, Pate RR. Effects of a new state policy on physical activity practices in child care centers in South Carolina. Am J Public Health. 2017 Jan;107(1):144-146. doi: 10.2105/AJPH.2016.303521
- Palakshappa D, Fiks AG, Faerber JA, Feudtner C. Association between state school nutrition laws and subsequent child obesity. *Prev Med*. 2016 Sep;90:107-13. doi: 10.1016/j.ypmed.2016.06.039
- Carling SJ, Demment MM, Kjolhede CL, Olson CM. Breastfeeding duration and weight gain trajectory in infancy. *Pediatrics*. 2015 Jan;135(1):111-9. doi: 10.1542/peds.2014-1392
- Modrek S, Basu S, Harding M, White JS, Bartick MC, Rodriguez E, Rosenberg KD. Does breastfeeding duration decrease child obesity? An instrumental variables analysis. *Pediatr Obes*. 2016 May 10. doi: 10.1111/ijpo.12143
- Wallby T, Lagerberg D, Magnusson M. Relationship between breastfeeding and early childhood obesity: results of a prospective longitudinal study from birth to 4 years. *Breastfeed Med.* 2017 Jan/Feb;12:48-53. doi: 10.1089/bfm.2016.0124
- Barrera CM, Perrine CG, Li R, Scanlon KS. Age at introduction to solid foods and child obesity at 6 years. *Child Obes*. 2016 Jun;12(3):188-92. doi: 10.1089/chi.2016.0021.

## **REFERENCES**

- Sisson SB, Li J, Stoner JA, Lora KR, Campbell JE, Arnold SH, DeGrace B, Horm D, Stephens L. Obesogenic environments in tribally-affiliated childcare centers and corresponding obesity rates in preschool children. *Prev Med Rep.* 2016 Feb 2;3:151-8. doi: 10.1016/j.pmedr.2016.01.003
- Liu ST, Graffagino CL, Leser KA, Trombetta AL, Pirie PL.
   Obesity prevention practices and policies in child care
   settings enrolled and not enrolled in the Child and Adult
   Care Food Program. *Matern Child Health J.* 2016
   Sep;20(9):1933-9. doi: 10.1007/s10995-016-2007-z
- Risica PM, Amin S, Ankoma A & Lawson E. The food and activity environments of childcare centers in Rhode Island: A directors' survey. *BMC Nutrition*. 2016 Jul;2(1): 41. doi: 10.1186/s40795-016-0081-7
- Schwartz MB, Henderson KE, Grode G, Hyary M, Kenney EL, O'Connell M, Middleton AE. Comparing current practice to recommendations for the Child and Adult Care Food Program. *Child Obes*. 2015 Oct;11(5):491-8. doi: 10.1089/chi.2015.0041
- Dixon LB, Breck A, Kettel Khan L. Comparison of children's food and beverage intakes with national recommendations in New York City child-care centres. *Public Health Nutr.* 2016 Sep;19(13):2451-7. doi: 10.1017/S1368980016001129
- Kharofa RY, Kalkwarf HJ, Khoury JC, Copeland KA. Are mealtime best practice guidelines for child care centers associated with energy, vegetable, and fruit intake? *Child Obes*. 2016 Feb;12(1):52-8. doi: 10.1089/chi.2015.0109
- Speirs K, Dahlberg E, Gonrong P, Liu R, Tepede A. Feeding for the future: child care providers' feeding practices and access to training. J Nutr Educ Behav. 2016;48(7):S102-S103. doi:10.1016/j.jneb.2016.04.271.
- Dev DA, McBride BA, Speirs KE, Blitch KA, Williams NA. "Great job cleaning your plate today!" Determinants of child-care providers' use of controlling feeding practices: an exploratory examination. *J Acad Nutr Diet*. 2016 Nov;116(11):1803-1809. doi: 10.1016/j.jand.2016.07.016.
- Natale R, Camejo S, Sanders LM. Communities putting prevention to work: results of an obesity prevention initiative in child care facilities. J Res Child Educ. 2016: 30(3), 306-319. doi: 10.1080/02568543.2016.1178672
- Ward DS, Welker E, Choate A, Henderson KE, Lott M, Tovar A, Wilson A, Sallis JF. Strength of obesity prevention interventions in early care and education settings: a systematic review. *Prev Med*. 2017 Feb;95 Suppl:S37-S52. doi: 10.1016/j.ypmed.2016.09.033
- Robson SM, Khoury JC, Kalkwarf HJ, Copeland K. Dietary intake of children attending full-time child care: what are they eating away from the child-care center? *J Acad Nutr Diet*. 2015 Sep;115(9):1472-8. doi: 10.1016/j.jand.2015.02.029.
- Roberts-Gray C, Briley ME, Ranjit N, Byrd-Williams CE, Sweitzer SJ, Sharma SV, Palafox MR, Hoelscher DM. 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. *Int J Behav Nutr Phys Act*. 2016 Jan 8;13:3. doi: 10.1186/s12966-015-0326-x

- Katzmarzyk PT, Denstel KD, Beals K, Bolling C, Wright C, Crouter SE, McKenzie TL, Pate RR, Saelens BE, Staiano AE, Stanish HI, Sisson SB. Results from the United States of America's 2016 Report Card on Physical Activity for Children and Youth. J Phys Act Health. 2016 Nov;13(11 Suppl 2):S307-S313. doi: 10.1123/jpah.2016-0321.
- 35. Prioreschi A, Micklesfield LK. A scoping review examining physical activity measurement and levels in the first 2 years of life. *Child Care Health Dev.* 2016 Nov;42(6):775-783. doi: 10.1111/cch.12382
- Gross RS, Mendelsohn AL, Yin HS, Tomopoulos S, Gross MB, Scheinmann R, Messito MJ. Randomized controlled trial of an early child obesity prevention intervention: impacts on infant tummy time. *Obesity* (Silver Spring). 2017 Mar 22. doi: 10.1002/oby.21779
- Perrin EM, Rothman RL, Sanders LM, Skinner AC, Eden SK, Shintani A, Throop EM, Yin HS. Racial and ethnic differences associated with feeding- and activity-related behaviors in infants. *Pediatrics*. 2014 Apr;133(4):e857-67. doi: 10.1542/peds.2013-1326
- Bingham DD, Costa S, Hinkley T, Shire KA, Clemes SA, Barber SE. Physical activity during the early years: a systematic review of correlates and determinants. *Am J Prev Med*. 2016 Sep;51(3):384-402. doi: 10.1016/j.amepre.2016.04.022
- Hinkley T, Salmon J, Crawford D, Okely AD, Hesketh KD. Preschool and childcare center characteristics associated with children's physical activity during care hours: an observational study. *Int J Behav Nutr Phys Act*. 2016 Nov 11;13(1):117. doi: 10.1186/s12966-016-0444-0
- Cerin E, Baranowski T, Barnett A, Butte N, Hughes S, Lee RE, Mendoza JA, Thompson D, O'Connor TM. Places where preschoolers are (in)active: an observational study on Latino preschoolers and their parents using objective measures. *Int J Behav Nutr Phys Act*. 2016 Feb 29;13:29. doi: 10.1186/s12966-016-0355-0
- Tandon PS, Walters KM, Igoe BM, Payne EC, Johnson DB. Physical activity practices, policies and environments in Washington State child care settings: results of a statewide survey. *Matern Child Health J.* 2017 Mar;21(3):571-582. doi: 10.1007/s10995-016-2141-7
- 42. Jayasuriya A, Williams M, Edwards T, Tandon P. Parents' perceptions of preschool activities: exploring outdoor play. *Early Educ Dev.* 2016;27(7):1004-1017. doi: 10.1080/10409289.2016.1156989
- 43. Copeland KA, Sherman SN, Kendeigh CA, Saelens BE, Kalkwarf HJ. Flip flops, dress clothes, and no coat: clothing barriers to children's physical activity in child-care centers identified from a qualitative study. *Int J Behav Nutr Phys Act*. 2009 Nov 6;6:74. doi: 10.1186/1479-5868-6-74
- Copeland KA, Sherman SN, Kendeigh CA, Kalkwarf HJ, Saelens BE. Societal values and policies may curtail preschool children's physical activity in child care centers. *Pediatrics*. 2012 Feb;129(2):265-74. doi: 10.1542/peds.2011-2102
- 45. Tandon PS, Saelens BE, Copeland KA. A comparison of parent and childcare provider's attitudes and perceptions about preschoolers' physical activity and outdoor time. *Child Care Health Dev.* 2016 Nov 28. doi: 10.1111/cch.12429

## **REFERENCES**

- De Marco AC, Zeisel S, Odom S L. An evaluation of a program to increase physical activity for young children in child care. *Early Educ Dev.* 2015; 26(1): 1-21. doi: 10.1080/10409289.2014.932237
- 47. LaRowe TL, Tomayko EJ, Meinen AM, Hoiting J, Saxler C, Cullen B; Wisconsin Early Childhood Obesity Prevention Initiative (WECOPI). Active Early: one-year policy intervention to increase physical activity among early care and education programs in Wisconsin. BMC Public Health. 2016 Jul 20;16:607. doi: 10.1186/s12889-016-3198-3
- Reid Chassiakos YL, Radesky J, Christakis D, Moreno MA, Cross C; Council On Communications And Media. Children and adolescents and digital media. *Pediatrics*. 2016 Nov;138(5). pii: e20162593. doi: 10.1542/peds.2016-2593
- Aftosmes-Tobio A, Ganter C, Gicevic S, Newlan S, Simon CL, Davison KK, Manganello JA. A systematic review of media parenting in the context of childhood obesity research. *BMC Public Health*. 2016 Apr 14;16:320. doi: 10.1186/s12889-016-2981-5
- Nathanson AI, Beyens I. The relation between use of mobile electronic devices and bedtime resistance, sleep duration, and daytime sleepiness among preschoolers. Behav Sleep Med. 2016 Jun 20:1-18. [Epub ahead of print] doi: 10.1080/15402002.2016.1188389
- Longacre MR, Drake KM, Titus LJ, Harris J, Cleveland LP, Langeloh G, Hendricks K, Dalton MA. Child-targeted TV advertising and preschoolers' consumption of high-sugar breakfast cereals. *Appetite*. 2017 Jan 1;108:295-302. doi: 10.1016/j.appet.2016.10.014
- Carson V, Kuzik N. Demographic correlates of screen time and objectively measured sedentary time and physical activity among toddlers: a cross-sectional study. *BMC Public Health*. 2017 Feb 13;17(1):187. doi: 10.1186/s12889-017-4125-y
- Nanney MS, LaRowe TL, Davey C, Frost N, Arcan C, O'Meara J. Obesity prevention in early child care settings: a bistate (Minnesota and Wisconsin) assessment of best practices, implementation difficulty, and barriers. *Health Educ Behav.* 2017 Feb;44(1):23-31. doi: 10.1177/1090198116643912
- Lindsay AC, Salkeld JA, Greaney ML, Sands FD. Latino family childcare providers' beliefs, attitudes, and practices related to promotion of healthy behaviors among preschool children: a qualitative study. *J Obes*. 2015;2015:409742. doi: 10.1155/2015/409742
- Tovar A, Vaughn AE, Grummon A, Burney R, Erinosho T, Østbye T, Ward DS. Family child care home providers as role models for children: cause for concern? *Prev Med Rep.* 2016 Nov 14;5:308-313. doi: 10.1016/j.pmedr.2016.11.010
- Østbye T, Mann CM, Vaughn AE, Namenek Brouwer RJ, Benjamin Neelon SE, Hales D, Bangdiwala SI, Ward DS. The keys to healthy family child care homes intervention: study design and rationale. *Contemp Clin Trials*. 2015 Jan;40:81-9. doi: 10.1016/j.cct.2014.11.003

- Schwartz MB, Just DR, Chriqui JF, Ammerman AS. Appetite self-regulation: environmental and policy influences on eating behaviors. *Obesity* (Silver Spring). 2017 Mar;25 Suppl 1:S26-S38. doi: 10.1002/oby.21770
- US Department of Agriculture. Child and Adult Care Food Program (CACFP): Nutrition standards for CACFP meals and snacks. <a href="https://www.fns.usda.gov/cacfp/meals-and-snacks">https://www.fns.usda.gov/cacfp/meals-and-snacks</a>. Accessed January 12, 2017.
- 59. US Department of Agriculture. Early Implementation of the Updated CACFP meal pattern requirements and the NSLP and SBP infant and preschool meal patterns. <a href="https://www.fns.usda.gov/early-implementation-updated-cacfp-meal-pattern-requirements-and-nslp-and-sbp-infant-and-preschool">https://www.fns.usda.gov/early-implementation-updated-cacfp-meal-pattern-requirements-and-nslp-and-sbp-infant-and-preschool</a>. Accessed January 12, 2017.
- Council on Communications and Media. Media and young minds. *Pediatrics*. 2016 Nov;138(5). doi: 10.1542/peds.2016-2591

#### APPENDIX A: Source of ASHW Indicators in PCO2/CFOC3 Standards

The tables in this appendix display the source standards in *PCO2* and *CFOC3* from which the *ASHW* study indicators were derived. The link to the NRC's searchable *CFOC3* data base (<a href="http://cfoc.nrckids.org/index.cfm">http://cfoc.nrckids.org/index.cfm</a>) enables viewing the complete standard(s), rationale, references and related standards for each indicator assessed. The page numbers of source standards in the print copies of *PCO2* and *CFOC3* also are provided.

Multiple source indicators. The concepts captured in some ASHW indicators are present in different contexts in more than one PCO2/CFOC3 standard. For example, the Infant Feeding indicator IB2: do not feed beyond satiety, is a core concept that is addressed slightly differently in two standards: Standard 4.3.1.2 - Feeding Infants on Cue by a Consistent Caregiver/Teacher ("observing satiety cues can limit overfeeding") and Standard 4.3.1.8 - Techniques for Bottle Feeding ("Allow infant to stop the feeding"). The table below identifies those ASHW indicators that were informed by more than one standard, including the numbers and names of the standards.

	INFANT FEEDIN	IG		t copy g #
Indicator #	ASHW Indicator Text	Source of Indicator in CFOC3 Standards	PCO2	CFOC3
IA1	Encourage and support breastfeeding and feeding of breast milk by making arrangements for mothers to feed their children comfortably on-site.	4.3.1.1 - General Plan for Feeding Infants	26	162
IA2	Serve human milk or infant formula to at least age 12 months, not cow's milk, unless written exception is provided by primary care provider and parent/guardian.	4.3.1.7 - Feeding Cow's Milk  8 4.2.0.4 - Categories of Foods	39 & 18	169 & 155
IB1	Feed infants on cue.	4.3.1.2 - Feeding Infants on Cue by a Consistent Caregiver/Teacher & 4.3.1.8 - Techniques for Bottle Feeding	27 & 33	164 & 170
IB2	Do not feed infants beyond satiety; Allow infant to stop the feeding.	4.3.1.2 - Feeding Infants on Cue by a Consistent Caregiver/Teacher & 4.3.1.8 - Techniques for Bottle Feeding	27 & 33	164 & 170
IB3	Hold infants while bottle feeding; Position an infant for bottle feeding in the caregiver/teacher's arms or sitting up on the caregiver/teacher's lap.	4.3.1.8 - Techniques for Bottle Feeding	33	170
IC1	Develop a plan for introducing age-appropriate solid foods (complementary foods) in consultation with the child's parent/guardian and primary care provider.	4.3.1.11 - Introduction of Age- Appropriate Solid Foods to Infants	35	172
IC2	Introduce age-appropriate solid foods (128 a) no sooner than 4 months of age, and preferably around 6 months of age.	4.3.1.11 - Introduction of Age- Appropriate Solid Foods to Infants	35	172
IC3	Introduce breastfed infants gradually to iron- fortified foods no sooner than four months of age, but preferably around six months to complement the human milk.	4.3.1.11 - Introduction of Age- Appropriate Solid Foods to Infants	35	172
ID1	Do not feed an infant formula mixed with cereal, fruit juice or other foods unless the primary care provider provides written instruction.	4.3.1.5 - Preparing, Feeding, and Storing Infant Formula	31	167
ID2	Serve whole fruits, mashed or pureed, for infants 7 months up to one year of age.	4.2.0.4 - Categories of Foods	18	155
ID3	Serve no fruit juice to children younger than 12 months of age.	4.2.0.4 - Categories of Foods & 4.2.0.7 - 100% Fruit Juice	18 & 21	155 & 157

### APPENDIX A: Source of ASHW Indicators in PCO2/CFOC3 Standards (cont.)

	NUTRITION			t copy g #
Indicator #	ASHW Indicator Text	Source of Indicator in <i>CFOC3</i> Standards		CFOC3
NA1	Limit oils by choosing monounsaturated and polyunsaturated fats (such as olive oil or safflower oil) and avoiding trans fats, saturated fats and fried foods.	4.2.0.4 - Categories of Foods	18	155
NA2	Serve meats and/or beans - chicken, fish, lean meat, and/or legumes (such as dried peas, beans), avoiding fried meats.	4.2.0.4 - Categories of Foods	18	155
NA3	Serve other milk equivalent products such as yogurt and cottage cheese, using low-fat varieties for children 2 years of age and older.	4.2.0.4 - Categories of Foods	18	155
NA4	Serve whole pasteurized milk to twelve to twenty- four month old children who are not on human milk or prescribed formula, or serve reduced fat (2%) pasteurized milk to those who are at risk for hypercholesterolemia or obesity	4.3.2.3 - Encouraging Self-Feeding by Older Infants and Toddlers	39	175
NA5	Serve skim or 1% pasteurized milk to children two years of age and older.	4.3.2.3 - Encouraging Self-Feeding by Older Infants and Toddlers	39	175
NB1	Serve whole grain breads, cereals, and pastas.	4.2.0.4 - Categories of Foods	18	155
NB2	Serve vegetables, specifically, dark green, orange, deep yellow vegetables; and root vegetables, such as potatoes and viandas.	4.2.0.4 - Categories of Foods	18	155
NB3	Serve fruits of several varieties, especially whole fruits.	4.2.0.4 - Categories of Foods	18	155
NC1	Use only 100% juice with no added sweeteners.	4.2.0.7 - 100% Fruit Juice	21	157
NC2	Offer juice only during meal times.	4.2.0.7 - 100% Fruit Juice	21	157
NC3	Serve no more than 4 to 6 oz juice/day for children 1-6 years of age.	4.2.0.4 - Categories of Foods & 4.2.0.7 - 100% Fruit Juice	17 & 21	155 & 157
NC4	Serve no more than 8 to 12 oz juice/day for children 7-12 years of age.	4.2.0.4 - Categories of Foods & 4.2.0.7 - 100% Fruit Juice	18 & 21	155 & 157
ND1	Make water available both inside and outside.	4.2.0.6 - Availability of Drinking Water	20	157
NE1	Teach children appropriate portion size by using plates, bowls and cups that are developmentally appropriate to their nutritional needs.	4.3.2.2 - Serving Size for Toddlers and Preschoolers & 4.7.0.1 - Nutrition Learning Experiences for Children	38 & 46	174 & 183
NE2	Require adults eating meals with children to eat items that meet nutrition standards.	4.5.0.4 - Socialization During Meals	41	179
NF1	Serve small-sized, age-appropriate portions.	4.3.2.2 - Serving Size for Toddlers and Preschoolers	38	174
NF2	Permit children to have one or more additional servings of the nutritious foods that are low in fat, sugar, and sodium as needed to meet the caloric needs of the individual child; Teach children who require limited portions about portion size and monitor their portions.	4.3.2.2 - Serving Size for Toddlers and Preschoolers & 4.5.0.4 - Socialization During Meals	38 & 41	174 & 179
NG1	Limit salt by avoiding salty foods such as chips and pretzels.	4.2.0.4 - Categories of Foods	18	155
NG2	Avoid sugar, including concentrated sweets such as candy, sodas, sweetened drinks, fruit nectars, and flavored milk.	4.2.0.4 - Categories of Foods	18	155
NH1	Do not force or bribe children to eat.	4.5.0.11 - Prohibited Uses of Food	43	182
NH2	Do not use food as a reward or punishment.	4.5.0.11 - Prohibited Uses of Food	43	182

## APPENDIX A: Source of ASHW Indicators in PCO2/CFOC3 Standards (cont.)

	PHYSICAL ACTIVITY/SC	REEN TIME		t copy g #
Indicator #	ASHW Indicator Text	Source of Indicator in <i>CFOC3</i> Standards		CFOC3
PA1	Provide children with adequate space for both inside and outside play.	3.1.3.1 - Active Opportunities for Physical Activity	51	90
PA2	Provide orientation and annual training opportunities for caregivers/teachers to learn about age-appropriate gross motor activities and games that promote children's physical activity.	3.1.3.4 - Caregivers'/Teachers' Encouragement of Physical Activity	57	95
PA3	Develop written policies on the promotion of physical activity and the removal of potential barriers to physical activity participation.	9.2.3.1 - Policies and Practices that Promote Physical Activity	58	353
PA4	Require caregivers/teachers to promote children's active play, and participate in children's active games at times when they can safely do so.	3.1.3.4 - Caregivers'/Teachers' Encouragement of Physical Activity	57	95
PA5	Do not withhold active play from children who misbehave, although out-of-control behavior may require five minutes or less calming periods to help the child settle down before resuming cooperative play or activities.	3.1.3.1 - Active Opportunities for Physical Activity	51	90
PB1	Do not utilize media (television [TV], video, and DVD) viewing and computers with children younger than two years.	2.2.0.3 - Limiting Screen Time – Media, Computer Time	59	66
PB2	Limit total media time for children two years and older to not more than 30 minutes once a week. Limit screen time (TV, DVD, computer time).	2.2.0.3 - Limiting Screen Time – Media, Computer Time & 3.1.3.4 - Caregivers'/Teachers' Encouragement of Physical Activity	59 & 57	66 & 95
PB3	Use screen media with children age two years and older only for educational purposes or physical activity.	2.2.0.3 - Limiting Screen Time – Media, Computer Time	59	66
PB4	Do not utilize TV, video, or DVD viewing during meal or snack time.	2.2.0.3 - Limiting Screen Time – Media, Computer Time	59	66
PC1	Provide daily for all children, birth to six years, two to three occasions of active play outdoors, weather permitting.	3.1.3.1 - Active Opportunities for Physical Activity	51	90
PC2	Allow toddlers sixty to ninety minutes per eighthour day for vigorous physical activity.	3.1.3.1 - Active Opportunities for Physical Activity	51	90
PC3	Allow preschoolers ninety to one-hundred and twenty minutes per eight-hour day for vigorous physical activity.	3.1.3.1 - Active Opportunities for Physical Activity	52	90
PD1	Provide daily for all children, birth to six years, two or more structured or caregiver/ teacher/ adult-led activities or games that promote movement over the course of the day—indoor or outdoor.	3.1.3.1 - Active Opportunities for Physical Activity & 3.1.3.4 - Caregivers'/Teachers' Encouragement of Physical Activity	51 & 57	90 & 95
PE1	Ensure that infants have supervised tummy time every day when they are awake.	3.1.3.1 - Active Opportunities for Physical Activity	51	90
PE2	Use infant equipment such as swings, stationary activity centers (ex. exersaucers), infant seats (ex. bouncers), molded seats, etc. only for short periods of time if at all.	3.1.3.1 - Active Opportunities for Physical Activity	51	90

### APPENDIX B: 2016 At-A-Glance

This table shows where healthy weight practice regulations were improved or lowered in states that made changes in 2016, as well as where states "Fully Meet" standards (Ratings = 4).

		СО	LORA	то	DISTRICT OF COLUMBIA			MISSOURI			оню			OKLAHOMA			VERMONT			Δ Totals		
Indicator	Short Description	CTR	LRG	SML	CTR	LRG	SML	CTR	LRG	SML	CTR	LRG	SML	CTR	LRG	SML	CTR	LRG	SML	+	-	4s
IA1	Support breastfeeding	+			+	+	+							+						5	0	8
IA2	No cow's milk < 1yr	+			+	+	+										+	+	+	7	0	13
IB1	Feed infants on cue				+	+	+													3	0	13
IB2	Stop feed @ satiety	+			+	+	+				+	+	+	+			+	+	+	11	0	11
IB3	Hold infant to feed			Г	+	+	+													3	0	0
IC1	Plan solid introduction	+			+	+	+					+	+				+	+	+	9	0	5
IC2	Intro solids @ 4-6 mo	+			+	+	+							+				+	+	7	0	0
IC3	Iron-Fort @ 4-6 mo	+		Г	+	+	+							+			+	+	+	8	0	0
ID1	Don't mix formula	m															+	+	+	3	0	3
ID2	Whole fruit 7 m-1 yr	201				::=								~				-	20	0	8	0
ID3	No juice < 12 mo	100			-	18.5	-											-		0	8	0
NA1	Limit oils/fats	Н																		0	0	0
NA2	Low fat meat/proteins	+	_	$\vdash$	+	+	+		┢	Н		$\vdash$		Н	$\vdash$	Н	+	+	+	7	0	0
NA3	•	+			+	+	+	-		H						=	+	+	+	7	0	0
NA4	Low fat milk equivalents Whole milk 1-2 y/o	7		$\vdash$	-	To	oge.		$\vdash$	Н		-				Н	+	+	+	3	0	0
NA5	Low fat milk > 2 y/o	+			+	+	+		-	Н				+		Н	+	+	+	8	0	13
NB1	Whole grains	+			+	+	+			H	-	_	-	Τ.			+	+	+	7	3	0
NB2	Variety of vegetables	+		$\vdash$	+	+	+			Н	-	<u> </u>	-			-	+	+	+	7	0	0
NB3	Variety of whole fruit	+		$\vdash$	+	+	+		<del>                                     </del>	Н		-		Н		Н	-5	-Ā-		4	0	0
NC1	100% juice	+			+	+	+		$\vdash$	Н				+			+	+	+	8	0	13
NC2	Juice only @ meals	+			SIE	84183	53TX			Н				ale		$\vdash$	als:	SHES	SHE	1	0	13
NC3	Juice 4-6 oz. 1-6 y/o	+			+	+	+		$\vdash$	Н		$\vdash$					+	4	141	7	0	2
NC4	<del>                                     </del>	7			т Н	+	+										+	+:	- T	7	0	2
ND1	Juice 8-12 oz. 7+ y/o	+	-		+		+			Н							+	+	+	7	0	
NE1	Make water available	T			-	+	T		┝	Н	-	_				Н	-	+	+	0	2	13 0
NE2	Teach portion sizes  Eat with children					$\vdash$			$\vdash$	$\vdash$	-5-2	⊢∸				$\vdash$			$\vdash$	0	0	0
NF1	And the second s				+	+	+		$\vdash$	Н			+	+		$\vdash$	+	+	+	8	0	13
NF2	Appropriate servings Healthy seconds	+			+	+	+		$\vdash$	Н			T.	T	_	Н	+	+	+	7	0	0
NG1	Limit salt	<i>T</i>		$\vdash$		Τ.	- T			Н						Н	Τ.		-	0	1	0
NG2	Avoid sugary foods	+			-		_							ı,				-	-	1	7	0
NH1	Food no force/bribe	7		Н	+	+	+		$\vdash$	Н		$\vdash$		+		Н	-	H	-	4	0	1
NH2	Food no reward/punish			$\vdash$	+	+	+		$\vdash$	Н		$\vdash$		+				<del> </del>	$\vdash$	4	0	1
PA1	Space for active play				-	+												+	+	3	0	12
PA2	Training on activities	-			-				_	$\vdash$	-			H			-	-	$\vdash$	0	0	0
PA3	Write activity policies	⊢	_	$\vdash$	_	_			<u> </u>	Н	_	_			_	Н	-	⊢∸	-20	0	3	0
PA4	Play with children		_						_	Н	_	-		+				_	$\vdash$	1	0	0
PA5	Don't withhold play		D		+	+	+			$\vdash$		+								7	0	6 4
PB1	No screen time < 2 yr	+	_	$\vdash$	_	+	_		┝	Н		<u> </u>		Н	_	Н	+	+:	+	- 65	190	- 1
PB2	Screen time 30 min/wk	+	$\vdash$	$\vdash$	+	+	+		$\vdash$	$\vdash$		_		$\vdash$	$\vdash$	$\vdash$		$\vdash$	$\vdash$	4	0	0
PB3	Screen time purpose			$\vdash$	+	+	+			$\vdash$				1 21		$\vdash$	-	Ŀ	-	3	3	3
PB4	No TV w/meals	+	_	$\vdash$				Н	$\vdash$	$\vdash$	+	+	+	+	$\vdash$	Н		÷	$\vdash$	5	0	4
PC1	Outdoor play occasions		$\vdash$	$\vdash$	-	+	8	$\vdash$	$\vdash$	$\vdash$		_		$\vdash$	$\vdash$	$\vdash$		-		5.23	2	
PC2	Toddler play time	+	,	$\vdash$		+				$\vdash$				H			+	+	+	5	0	4
PC3	Preschool play time	$\vdash$		$\vdash$	8.	+		H	_	$\vdash$		_		.8		$\vdash$		+	+	3	0	0
PD1	Structured play				+	+	+							+				_	$\vdash$	4	0	0
PE1	Tummy time often	$\vdash$			+	+	+	+	+	+	+	+	+	+				-		10	0	10
PE2	Limit time infant equip.				+	+	+	I C.			. Chil	10						:±:	+	5	0	0

73	write activity policies																_			U	9	U	
PA4	Play with children													+						1	0	0	ı
PA5	Don't withhold play				+	+	+					+								4	0	6	į
PB1	No screen time < 2 yr	+			+	+	+										+	+	+	7	0	4	ı
PB2	Screen time 30 min/wk	+			+	+	+													4	0	0	ĺ
PB3	Screen time purpose				+	1+	+							,	Į		ŀ	-		3	3	3	
PB4	No TV w/meals	+									+	+	+	+						5	0	4	
PC1	Outdoor play occasions				-	+												+		2	2	0	
PC2	Toddler play time	+				4											+	1+1	+	5	0	4	į
PC3	Preschool play time					+												+	+	3	0	0	
PD1	Structured play				+	+	+							+						4	0	0	
PE1	Tummy time often				+	+	+	+	+	+	+	+	+	+						10	0	10	
PE2	Limit time infant equip.				+	4	ŧ											1+	+	5	0	0	ĺ
Abbreviation	Key: CTR=Centers, LRG=Larg	e Far	nily C	hild	Care	Hom	e, SIV	IL=Sr	nall F	amily	/ Chile	d Car	е Но	me									
Color Code:														Δ(Ch	ange	Cod	e:						
	CACFP required for no care types				4 = F	Regulat	tion fu	illy me	eets sta	ındard	I				+	Impr	oved F	Rating					
	CACFP required for all types				Most	frequ	ently '	fully	met" ir	idicate	or				_	Lowe	ered R	ating					

#### APPENDIX C: State Documents Searched (2016)

Although the NRC makes extensive efforts to discover new and revised documents each year through website searches and calls to state child care licensing agencies, a new regulation may go undiscovered and unrated in the year it is made effective. In such a case, the document will be screened and rated as appropriate for inclusion in the ASHW report for the year it is discovered. If state licensing personnel are aware of any such documents in their state's regulatory set, please inform the NRC at <a href="info@nrckids.org">info@nrckids.org</a>. Child care types: CTR=Centers, LRG=Large Family Homes, SML=Small Family Homes.

#### Documents rated in 2016 are highlighted in purple.

STATE & Document	Document Title	New 2016 Document Date	Revision Date	Previous rated version	CTR LRG SML					
Status		Date		VEISIOII	CTR	LRG	SML			
AK	ALASKA									
Screened	7 AAC 57 Child Care Facilities Licensing		5/15/2016	6/23/2006	Х	Х	Х			
СО	COLORADO									
Rated	7.702 Rules Regulating Child Care Center (less than 24-hour care)	2/1/2016	2/1/2016	4/1/2015	х					
Screened	7.702 Rules Regulating Child Care Center (less than 24-hour care)		9/30/16	2/1/2016	х					
Screened	7.707 Rules Regulating Family Child Care Homes		9/30/16	6/1/2012		Х	Х			
DC	DISTRICT OF COLUMBIA									
Rated	Title 5-A DCMR Chapter 1 Child Development Facilities: Licensing	11/15/2016	11/15/2016	4/27/2007	х	х	х			
FL	FLORIDA									
Screened	2016 Florida Statutes Sections 402.26-402.319 Child Care		2016	2012	х	х	х			
GA	GEORGIA									
Screened	Rules for Child Care Learning Centers Chapter 591-1-1		10/16/2016	3/2014	X					
Screened	Rules and Regulations Family Child Care Learning Homes Chapter 290-2-3		10/16/2016	3/2014			х			
ID	IDAHO									
Screened	16.06.02 Rules Governing Standards for Child Care Licensing		7/1/2016	7/1/2010	х	х	Х			
IL	ILLINOIS									
Screened	Part 406 Licensing Standards for Day Care Homes		8/18/2016	7/1/2016			Х			
Screened	Part 408 Licensing Standards for Group Day Care Homes		8/18/2016	7/1/2008		Х				
IA	IOWA									
Screened	Chapter 110 Child Development Homes		8/3/2016	11/1/2009		Х				
Screened	Chapter 109 Child Care Centers		8/3/2016	5/1/2012	Х					
LA	LOUISIANA									
Screened	Bulletin 137-Louisiana Early Learning Center Licensing Requirements		4/2016	7/1/2015	х	х				
МО	MISSOURI									
Rated	Chapter 61 – Licensing Rules for Family Day Care Homes	3/31/2016	3/31/2016	5/2002			Х			
Rated	Chapter 62 – Licensing Rules for Group Child Care Homes and Child Care Centers	3/31/2016	3/31/2016	1/2002	х	х				
NM	NEW MEXICO									
Screened	Title 8 Chapter 16 Child Care Licensing: Child Care Centers, Out of School Time Programs, Family Child Care Homes, and Other Early Care and Education		10/1/2016	7/2014	х	х	х			

## APPENDIX C: State Documents Searched (2016)

STATE & Document	Document Title	New 2016 Document	Revision Date	Previous rated		types by ent	
Status		Date		version	CTR	LRG	SML
NC	NORTH CAROLINA						
Screened	Family Child Care Home Requirements		9/23/2016	5/2013		Х	Х
Screened	Chapter 9 - Child Care Rules		9/23/2016	1/2013	Х	Х	Х
Screened	Article 7 Chapter 110 of the North Carolina General Statutes Child Care Facilities		1/2016	8/1/2012	х	х	х
ND	NORTH DAKOTA						
Screened	Chapter 75-03-10 Child Care Center Early Childhood Services		4/1/2016	4/2011	х		
Screened	Chapter 75-03-08 Family Child Care Early Childhood Services		4/1/2016	4/2011			х
Screened	Chapter 75-03-09 Group Child Care Early Childhood Services		4/1/2016	4/2011		х	
ОН	ОНЮ						
Rated	Child Care Center Manual		12/23/16	6/21/2010	Х		
Rated	Family Child Care Manual	12/23/16	12/23/16	N/A		Х	Х
ОК	OKLAHOMA						
Rated	Licensing Requirements for Child Care Programs		1/1/2016	10/1/2009	Х		
OR	OREGON						
Screened	Rules for Certified Child Care Centers		9/29/2016	1/1/2010	х		
Screened	Rules for Certified Family Child Care Homes		9/29/2016	1/1/2010		Х	
Screened	Rules for Registered Family Child Care Homes		9/29/2016	1/1/2010			Х
SD	SOUTH DAKOTA						
Screened	Chapter 67:42:03 Family Day Care Homes		9/12/2016	9/29/2004			Х
Screened	Chapter 67:42:10 Licensed Day Care Programs		9/12/2016	9/29/2004	Х	Х	
TN	TENNESSEE						
Screened	Chapter 1240-04-03 Licensure Rules for Child Care Centers		7/2016	3/14/2009	х		
Screened	Chapter 1240-04-04 Standards for Family Child Care Homes		7/2016	3/14/2009			х
Screened	Chapter 1240-04-01 Standards for Group Child Care Homes		7/2016	3/14/2009		х	
TX	TEXAS						
Screened	Chapter 746 Minimum Standards for Child-Care Centers		9/2016	6/2014	Х		
Screened	Chapter 747 Minimum Standards for Child-Care Homes		7/2016	6/2014		Х	Х
UT	UTAH						
Screened	R430-90 Licensed Family Child Care		3/30/2016	9/1/2008		Х	
Screened	R430-50 Residential Certificate Child Care		3/30/2016	9/1/2008			Х
Screened	R381-100 Child Care Centers		3/30/2016	9/1/2009	Х		
VT	VERMONT						
Rated	Child Care Licensing Regulations: Center Based Child Care and Preschool Programs		9/1/2016	2/12/2001	х		
Rated	Child Care Licensing Regulations: Registered and Licensed Family Child Care Homes	9/1/2016	9/1/2016	N/A		х	х

## APPENDIX C: State Documents Searched (2016)

STATE & Document	Document Title	New 2016 Document	Revision Date	Previous rated	Child care types covered by document				
Status		Date		version	CTR	LRG	SML		
VA	VIRGINIA								
Screened	Standards for Licensed Child Day Centers		10/19/2016	3/6/2008	Х				
Screened	Standards for Licensed Family Day Homes with Interpretation Guidelines		10/19/2016	3/2011		х	х		
Screened	Title 78 Series 19 Family Child Care Home Registration Requirements		7/1/2016	7/1/2007			х		
WV	WEST VIRGINIA								
Screened	Title 78 Series 1 Child Care Center Licensing		7/1/2016	7/2014	Х				
Screened	Title 78 Series 18 Family Child Care Facility Licensing Requirements		7/1/2016	7/1/2007		х			
Screened	Title 78 Series 19 Family Child Care Home Registration Requirements		7/1/2016	7/1/2007			х		
WI	WISCONSIN								
Screened	DCF 250 Licensing Rules for Family Child Care Centers		8/1/2016	1/1/2009			Х		
Screened	DCF 251 Licensing Rules for Group Child Care Centers		8/1/2016	7/1/2007	Х	Х			
Screened	DCF 202 Child Care Certification		9/2016	11/2008			Х		
WY	WYOMING								
Screened	Rules for Certification of a Family Child Care Home, Family Child Care Center or Child Care Center – Chapter 4 – General Requirements	2016	2016	N/A	х	х	х		
Screened	Rules for Certification of a Family Child Care Home Chapter 5		2016	12/2013			х		
Screened	Rules for Certification of a Family Child Care Center Chapter 6		2016	12/2013		х			
Screened	Rules for Certification of a Child Care Center Chapter 7		2016	12/2013	Х				

### APPENDIX D: Degree to which Regulations Address Indicators (2016)

Degree to which Licensing Regulations support ASHW indicators from Caring for Our Children: National Health & Safety Performance Standards for Early Care & Education Programs, 3rd Ed.\* by Care Type (2017)

		Fully Meets		ets	Partial			Missing			Со	cts		
	Code & Descriptions of CFOC Standards Components		CTR	LRG	SML	CTR	LRG	SML	CTR	LRG	SML	CTR	LRG	SML
		code & Descriptions of Groc Standards components	# States		es	# States		es	#	State	es	# States		
	IA1	Encourage and support breastfeeding and feeding of breast milk by making arrangements for mothers to feed their children comfortably on-site	11	9	9	23	23	18	17	18	21	0	0	0
	IA2	Serve human milk or infant formula to at least age 12 months, not cow's milk, unless written exception is provided by primary care provider and parent/guardian	33	33	27	5	2	2	12	14	18	1	1	1
	IB1	Feed infants on cue	37	37	32	6	3	2	6	9	12	1	1	1
	IB2	Do not feed infants beyond satiety; Allow infant to stop the feeding	13	13	10	23	21	18	15	16	20	0	0	0
ding	IB3	Hold infants while bottle feeding; Position an infant for bottle feeding in the caregiver/teacher's arms or sitting up on the caregiver/teacher's lap	12	9	8	37	34	32	2	7	8	0	0	0
Infant Feeding	IC1	Develop a plan for introducing age-appropriate solid foods (complementary foods) in consultation with the child's parent/guardian and primary care provider	5	5	2	39	37	34	7	8	12	0	0	0
드	IC2	Introduce age-appropriate solid foods no sooner than 4 months of age, and preferably around 6 months of age	4	4	3	33	29	28	13	16	17	1	1	0
	IC3	Introduce breastfed infants gradually to iron-fortified foods no sooner than four months of age, but preferably around six months to complement the human milk	1	0	0	36	34	29	14	16	19	0	0	0
	ID1	Do not feed an infant formula mixed with cereal, fruit juice or other foods unless the primary care provider provides written instruction	5	3	3	2	3	2	44	44	43	0	0	0
	ID2	Serve whole fruits, mashed or pureed, for infants 7 months up to 1 year of age	0	0	0	1	1	1	14	16	19	36	33	29
	ID3	Serve no fruit juice to children younger than 12 months of age	2	1	1	3	3	3	13	15	18	33	31	26

Abbreviation Key: CTR=Centers, LRG=Large Family Child Care Home, SML=Small Family Child Care Home

### APPENDIX D: Degree to which Regulations Address Indicators (2016) (cont.)

Degree to which Licensing Regulations Contain Selected Components (Indicators) of the Caring for Our Children: National Health & Safety Performance Standards for Early Care & Education Programs, 3rd Ed.\* by Care Type (2016)

		Fully Present		sent	nt Partial		1	1	Missin		Contra		cts	
			CTR	LRG	SML	CTR	LRG	SML	CTR	LRG	SML	CTR	LRG	SML
	Code & Descriptions of CFOC Standards Components				26	# States		oc .	# Stat		00	# State		-
		Limit oils by choosing monounsaturated and polyunsaturated fats	17	State	E3	#	Stati	<b>E</b> 3	n	Stati	E3	#	State	22
	NA1	(such as olive oil or safflower oil) and avoiding trans fats, saturated	1	0	0	4	4	2	46	46	45	0	0	0
		fats and fried foods												
	NA2	Serve meats and/or beans - chicken, fish, lean meat, and/or	1	1	1	43	41	34	7	8	12	0	0	0
	IVAZ	legumes (such as dried peas, beans), avoiding fried meats	1	1	1	43	41	34		0	12	Ü	0	
	NA3	Serve other milk equivalent products (yogurt, cottage cheese) using	0	0	0	41	39	32	10	10	14	0	1	1
		low-fat variaties for 2 years of age and older	202	- 10	7.6%	84		6.50_56				0		1244
		Serve whole pasteurized milk to twelve to twenty-four month old children who are not on human milk or prescribed formula, or serve												
	NA4	reduced fat (2%) pasteurized milk to those who are at risk for	3	2	1	12	10	8	36	38	38	0	0	0
		hypercholesterolemia or obesity												
	NIAF	Serve skim or 1% pasteurized milk to children two years of age and	25	22	26	_	-	_	4.2	4.5	20	_		
	NA5	older	35	33	26	2	3	2	12	15	20	2	0	0
	NB1	Serve whole grain breads, cereals, and pastas	3	3	2	35	35	29	13	12	16	0	0	0
	NB2	Serve vegetables, specifically, dark green, orange, deep yellow	5	7	3	39	35	32	7	8	12	0	0	0
	1402	vegetables; and root vegetables, such as potatoes and viandas		,		55	33				12		J	J
	NB3	Serve fruits of several varieties, especially whole fruits	9	9	7	36	34	29	6	7	11	0	0	0
	NC1	Use only 100% juice with no added sweeteners	40	38	31	2	2	2	8	9	13	1	1	1
	NC2	Offer juice (100%) only during meal times	4	2	2	4	4	2	43	44	43	0	0	0
Nutrition	NC3	Serve no more than 4 to 6 oz juice/day for children 1-6 years of age	5	6	5	34	35	29	12	10	14	0	0	0
N	NC4	Serve no more than 8 to 12 oz juice/day for children 7-12 years of age	4	6	5	35	35	29	12	10	14	0	0	0
	ND1	Make water available both inside and outside	42	38	34	6	9	9	3	4	5	0	0	0
		Teach children appropriate portion sizes by using plates, bowls &												
	NE1	cups that are developmentally appropriate to their nutritional	0	0	0	8	5	4	43	45	43	0	0	0
		needs												
	NE2	Require adults eating meals with children to eat items that meet	3	2	2	5	2	1	43	46	44	0	0	0
	5,131071.071	nutrition standards	2.00			,						1000		X-00
	NF1	Serve small-sized, age-appropriate portions	41	42	36	3	3	4	7	5	7	0	0	0
		Permit children to have one or more additional servings of the												
	NIEG	nutritious foods that are low in fat, sugar, and sodium as needed to	_		_	27	2.7	22		_	4.5			
	NF2	meet the caloric needs of the individual child; Teach children who	2	2	2	37	37	32	8	8	12	4	3	1
		require limited portions about portion size and monitor their portions												
	NG1	Limit salt by avoiding salty foods such as chips and pretzels	4	3	1	1	2	1	46	45	45	0	0	0
		Avoid sugar, including concentrated sweets such as candy, sodas,	1000			2.20		270.0						,
	NG2	sweetened drinks, fruit nectars, and flavored milk	3	1	0	13	12	8	10	14	18	25	23	21
	NH1	Do not force or bribe children to eat	5	2	2	30	34	30	16	14	15	0	0	0
	NH2	Do not use food as a reward or punishment	13	7	6	33	37	35	5	6	6	0	0	0
	5200000000		7.000000		19		111111111111111111111111111111111111111	0.500	1000	- 220		(8)		1800

Abbreviation Key: CTR=Centers, LRG=Large Family Child Care Home, SML=Small Family Child Care Home

### APPENDIX D: Degree to which Regulations Address Indicators (2016) (cont.)

Degree to which Licensing Regulations Contain Selected Components (Indicators) of the Caring for Our Children: National Health & Safety Performance Standards for Early Care & Education Programs, 3rd Ed.\* by Care Type (2016)

			Fully Present		ent	Partial			Missing			Со	icts	
		Code & Descriptions of CFOC Standards Components	CTR	LRG	10000000	CTR		SML	CTR		SML	CTR	LRG	
	-		#	State	25	#	State	es	#	State	es I	#	State	èS
	PA1	Provide children with adequate space for both inside and outside play	50	46	36	0	2	6	1	2	6	0	0	0
	PA2	Provide orientation and annual training opportunities for caregivers/teachers to learn age-appropriate gross motor activities and games that promote physical activity	0	0	0	5	3	3	46	47	45	0	0	0
	PA3	Develop written policies on the promotion of physical activity and the removal of potential barriers to physical activity participation	1	1	1	4	5	3	46	44	44	0	0	0
	PA4	Require caregivers/teachers to promote children's active play, and participate in children's active games at times when they can safely do so	3	1	1	1	1	1	47	48	46	o	0	0
Physical Activity & Screen Time	PA5	Do not withhold active play from children who misbehave, although out-of-control behavior may require five minutes or less calming periods to help the child settle down before resuming cooperative play or activities	15	13	13	13	13	11	23	24	24	0	0	0
Scree	PB1	Do not utilize media (television [TV], video, and DVD) viewing and computers with children younger than 2 years	13	5	4	14	20	19	24	25	25	0	0	0
ity &	PB2	Limit total media time for children 2 years and older to not more than 30 minutes once a week	0	0	0	24	25	22	27	25	26	0	0	0
Activ	PB3	Use screen media with children age two years and older only for educational purposes or physical activity	10	8	7	4	4	4	36	37	37	1	1	0
sical	PB4	Do not utilize TV, video, or DVD viewing during meal or snack time	6	4	3	2	0	0	43	46	45	0	0	0
Ph	PC1	Provide daily for all children, birth to 6 years, two to three occasions of active play outdoors, weather permitting	7	6	6	41	38	36	3	6	6	0	0	0
	PC2	Allow toddlers 60-90 minutes per 8-hour day for vigorous physical activity	6	5	4	34	32	33	11	13	11	0	0	0
	РС3	Allow preschoolers 90-120 minutes per 8-hour day for vigorous physical activity	0	0	0	40	37	36	11	13	12	0	0	0
	PD1	Provide daily for all children, birth to six years, two or more structured or caregiver/ teacher/ adult-led activities or games that promote movement over the course of the day—indoor or outdoor	3	2	2	12	9	6	36	39	39	0	0	0
	PE1	Ensure that infants have supervised tummy time every day when they are awake	18	12	11	2	3	2	31	35	35	0	0	0
		Use infant equipment such as swings, stationary activity centers (ex. exersaucers), infant seats (ex. bouncers), molded seats, etc. only for short periods of time if at all	3	2	2	26	18	16	22	29	29	0	1	1

Abbreviation Key: CTR=Centers, LRG=Large Family Child Care Home, SML=Small Family Child Care Home