Early Childhood

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Nationwide

Over the last four decades, the prevalence of obesity among preschool children ages two to five has more than doubled, from 5% in the late 1970s to over 12% by the early 2000s. By 2009, 27% percent of preschoolers nationwide were overweight and 12% were obese.[1] A 2009 study of 4-year old children in the U.S. found 18.4% to have a BMI at or above the 95th percentile and 13.8% to be at or above the 97th percentile. This study's examination of racial and ethnic disparities in obesity among preschool children found that American Indian/Native Alaskan, Hispanic, and non-Hispanic black children were significantly more likely to be included in these categories of obesity than were their non-Hispanic white and Asian counterparts.[2]

These statistics suggest a lifetime of obesity for alarming proportions of the U.S. population as these children age. Weight gain and obesity in early life are known to be highly predictive of weight as children get older and eventually become adults, making early childhood approaches a critical component of childhood obesity prevention. Research has long indicated that childhood obesity often begins before the age of five years. For example, researchers from Harvard University demonstrated that weight gain in the first six months of life is a strong predictor of weight at three years of age and may have more of an influence on obesity than weight at birth.[3]

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The earliest years of a child's life also hold the greatest potential to establish a foundation of obesity prevention for life. A number of factors are believed to influence weight gain in early childhood. These include maternal factors such as pre-pregnancy weight gain in women,[4] [5] [6] weight gain during pregnancy,[7] gestational diabetes,[8] [9] and toxic exposures in-utero from chemicals in tobacco and the environment.[5] [10] [11] [12] Breastfeeding has been shown to significantly reduce an infant's likelihood of becoming overweight or obese as a child.[13] [14] [15] Obesity prevention efforts should not only start early in a child's life, including interventions with expectant families and families of infants and toddlers, but should also engage women during the time leading up to a pregnancy.

Childcare provider practices also offer a promising opportunity to positively influence the health and well-being of infants and toddlers, as over half of U.S. children spend up to twelve hours a day in childcare. Intervening in childcare settings has the potential to alter the food and physical activity environments of very young children,[16] ensuring that a significant number of children have access to healthy food and beverages and have safe opportunities for physical activity throughout the day. Because racial and ethnic disparities may reflect institutional practices that vary with the race or ethnicity of children served, city- and state-level policy changes offer the potential to reduce disparities via universal application of policies, as long as careful attention is paid to providers serving communities that experience disparities. (see **Introduction/Health Equity** section)

Collectively, this compelling body of evidence provides a clear and strong rationale for intervening to prevent childhood obesity *before* children begin elementary school, focusing on family, community, and institutional environments of 0-5 year olds and, based on maternal risk factors listed above, mothers and soon-to-be mothers of 0-5 year olds. Accordingly, the Institute of Medicine published a comprehensive report on early childhood obesity prevention policies in 2011.[17] This report, crafted by a team of the nation's leading experts, offers evidence-based recommendations for physical activity, nutrition, screen time, and sleep practices of children from birth through age five, as well as for food marketing to this age group. Their key recommendations are highlighted below.

Physical Activity

Young children, including infants and toddlers, require physical activity to maximize their physical, intellectual, and skill development as well as to maintain a healthy weight. Experts recommend that regulatory agencies require childcare providers to offer opportunities for physical activity throughout the day. Infants need "tummy time" for muscle development, and placement in high chairs should be reserved for feeding time so they may otherwise freely explore their environment. Toddlers and preschoolers should have access to indoor and outdoor play, while time in strollers should be limited so kids are walking, running, skipping, and playing as much as possible. Sedentary activities should be limited, with no more than 30 minutes of sitting or standing at one time. Withholding recess or other opportunities for physical activity as a punishment is discouraged.

Nutrition

A strong body of evidence documents breastfeeding's obesity-preventive effects, among many other health benefits; however, few women are able to meet the American Academy of Pediatrics recommendations of six months of exclusive breastfeeding along with continued breastfeeding

through baby's first birthday. Only 15% and 23%, respectively, of mothers nationwide currently meet these goals.[18] The authors of the report urge hospitals and employers in particular to implement policies and practices that facilitate breastfeeding and provide safe, comfortable, and convenient opportunities for mothers to pump or breastfeed.

To complement breastfeeding efforts, the report recommends that childcare center nutrition standards require a variety of healthy foods including whole grains; fruits and vegetables prepared with minimal added fat, sugar or salt; and low- or no-fat dairy. The U.S. Department of Agriculture is called upon to create science-based dietary recommendations for children under two years of age (no such recommendations exist at the time of writing) to provide clear guidance for parents, childcare providers, and other caregivers. Regardless of the setting – home or childcare – infants and toddlers should be encouraged to stop when full rather than urged to finish a bottle or "clean the plate."

Marketing and Screen Time

The evidence-backed recommendations of the report counsel no more than two hours a day of screen time for children ages two to five with no more than one hour per day in childcare settings. No screen time at all is recommended for children up to age two. With strong evidence suggesting children with a television or computer in their bedrooms are more likely to be obese, parents are urged not to permit these devices or other forms of digital media in children's rooms. Advocates for children's health are urged to use social media to educate and encourage children to adopt healthy lifestyles. CLOCC's *5-4-3-2-1 Go!*® message was cited by the report authors as an example of an effective and engaging tool for marketing health-promoting behaviors.

Sleep

As the obesity epidemic has developed over the past few decades, a parallel epidemic of sleep deprivation has occurred, with children averaging 30 to 60 minutes less sleep per night between the 1970s and the 1990s.[19] Emerging evidence strongly suggests that inadequate sleep is a risk factor for obesity. As such, the report recommends childcare regulatory agencies require providers to implement practices that promote age-appropriate sleep durations. Newborns may need up to 18 hours of sleep per day, while toddlers and preschoolers may require up to 14 or 13 hours, respectively, in a 24 hour period.

Chicago

CLOCC's 2009 obesity prevalence study found that 22% of Chicago children were obese when first entering school (ages 3 – 7).[20] For these children, the factors related to their weight status took effect in early childhood.

In Illinois, about 70% of mothers begin breastfeeding their newborns, but only 35% are breastfeeding their infants exclusively at three months. Chicago mothers breastfeed at even lower rates.[21] [22]

At the end of 2011, there were no officially designated Baby-Friendly hospitals in Chicago and just two in the state of Illinois. (Baby-Friendly hospitals employ proven practices and policies that lead to higher rates of breastfeeding.)

According to a report published by Illinois Action for Children using 2004 Illinois Department of Human Services data, over 60,000 children under 5 years of age in Cook County were in licensed childcare in 2004, and an additional 42,000 were in license-exempt care.[22] In their review of state-level childcare regulations, Kaphingst and Story examined policies in all fifty states that covered childcare centers (CCCs) and small family childcare homes (SFHs).[15] They found that many states rely on the federal Child and Adult Care Feeding Program for nutrition guidelines, with more focusing on CCS than SFHs. Also, no state licensing regulations mandated that childcare facilities meet specific nutrient-based standards, with only two states instructing childcare settings to comply with the *Dietary Guidelines for Americans* (Illinois was not among them). Very few states set limitations on foods of low nutritional value, and, while Illinois did so for CCCs, they did not for SFHs. Only four states had a policy on vending machines in childcare settings; again, Illinois was not included among these. Although requirements for large muscle or gross motor activity and outdoor activity time were found to exist for both settings across most states, only a very few set minimums for amount of time spent in physical activity and made recommendations for levels of activity (e.g., moderate, vigorous). Illinois did not have these more specific requirements in place. Also, while Illinois regulations defined appropriate inclusion of media in childcare program activities for CCCs, maximum time limits for screen-time were not set for any type of facility.

Current Strategies/Progress to Date

In Chicago,

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hospitals with labor and delivery units are on the way to achieving Baby-Friendly Hospital designation.

By the fall of 2012, as part of Chicago's Healthy Places initiative (www.healthyplaceschicago.org), 14 of Chicago's 19 hospitals with labor and delivery units were on the way to achieving designation as Baby-Friendly hospitals, and an impressive ten of these hospitals were already in phase two (out of four) of the process. In addition, a pilot program in the Rogers Park neighborhood to encourage local businesses to self-designate as breastfeeding-friendly was underway with strong participation from the business sector. A number of statewide efforts (including the 2012 Hospital Infant Feeding Act) will supplement this hospital-focused work and improvements across the state of Illinois for breastfeeding support will have a positive impact in Chicago.

Systems of authority over childcare are complex, with states having jurisdiction over most settings and cities and towns having more limited authority. Illinois and Chicago are no exception. Therefore, in order to improve policy for childcare settings in Chicago, state-level changes must occur. Chicago does have some authority over some aspects of childcare practices and has been making strides to strengthen them. In 2009, the Chicago Board of Health and the Chicago Department of Public Health (CDPH) passed a joint resolution to strengthen standards for nutrition, physical activity, and screen time in licensed childcare centers under CDPH's purview. In 2011, requirements for the use of low- or no-fat dairy were included for children over the age of two. To support effective implementation of these new standards, CDPH, the Erikson Institute, Illinois Action for Children, and CLOCC developed a training program for childcare providers to help them align their practices with the new evidence-based nutrition, activity, and screen time standards.

Recommendations for the Next Decade

Goal 1: Ensure the health of women before and during pregnancy.*

Objective 1-1: Encourage good nutrition, physical activity, and healthy weight and weight gain for women before and during pregnancy.

Objective 1-2: Eliminate (or prevent) fetal exposure to tobacco and environmental toxins.

Goal 2: Promote the consumption of nutritious foods for 0-5 year olds.

Objective 2-1: Encourage breastfeeding.

- **Strategy a:** Support obstetricians, gynecologists, and pediatricians to discuss breastfeeding with mothers and families.
- **Strategy b:** Support hospitals with labor and delivery units to promote successful initiation of breastfeeding.
  - **Tactic:** Implement the Baby Friendly Hospital Initiative (BFHI).
  - **Tactic:** Support adoption of 10 Steps to Successful Breastfeeding (from BFHI) for hospitals that cannot commit to the BFHI.
- **Strategy c:** Improve community environments to support breastfeeding women.
  - **Tactic:** Ensure that Chicago communities adhere to the State of Illinois 2004 Right to Breastfeed Act.
  - **Tactic:** Ensure that Chicago workplaces adhere to the State of Illinois 2001 Nursing Mothers in the Workplace Act.
  - **Tactic:** Implement a breastfeeding friendly business initiative in which local businesses are designated as a breastfeeding-friendly location.
- **Strategy d:** Support breastfeeding mothers to encourage and facilitate breastfeeding.

Objective 2-2: Support healthy nutrition for 0-5 year olds at home and in the family.

- **Strategy a:** Develop education program(s) to educate mothers and families of infants (or expectant families) about proper nutrition from 0-5. (See **Health Promotion and Public Education** section)
- **Strategy b:** Build capacity of organizations/institutions serving families of 0-5 year olds (or expectant families) to train/educate families about proper infant/toddler nutrition.

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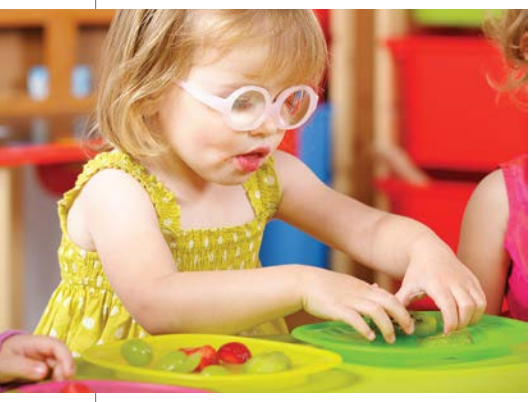
* We include broad goals and objectives for ensuring that women are healthy leading up to and during pregnancy based on factors found to influence weight in early childhood. We do not, however, list specific strategies and tactics. Interested readers should refer to the U.S. Department of Health and Human Services' www.womenshealth.gov section on pregnancy.



Objective 2-3: Ensure proper nutrition in childcare settings.

- **Strategy a:** Provide support through policy and environmental change in childcare centers and homes that enable breastfeeding mothers to supply breast milk to their infants/toddlers.
  - **Tactic:** Train staff and provide equipment for breast milk storage.
  - **Tactic:** Provide adequate space in childcare settings for women to breastfeed their infants/toddlers.
- **Strategy b:** Ensure nutritious meals and snacks for children in childcare, following the age-appropriate *Dietary Guidelines for Americans* and USDA MyPlate recommendations.
  - **Tactic:** Provide training for childcare providers on national nutrition guidelines and on Chicago standards for food and beverage in childcare.
  - **Tactic:** Ensure that childcare centers have access to foods and beverages (through on-site preparation, off-site vendors, or community food and beverage retail) that enable them to meet national and Chicago guidelines and standards for food and beverage in childcare. (See **Food and Beverage Access** section)
  - **Tactic:** Train and support childcare providers to include age-appropriate nutrition lessons into regular curriculum, including on-site gardens or linkages to community gardens to educate young children about where food comes from.
  - **Tactic:** Engage parents and families of children in childcare through education about healthy nutrition practices and informing them about food and beverage policies in childcare settings (including policies about food and beverage from home).
- **Strategy c:** Limit children's exposure to food marketing while in childcare through screen time standards and limits and by following laws and regulations pertaining to advertising in educational settings. (See **Business Sector and Industry Practices** section)

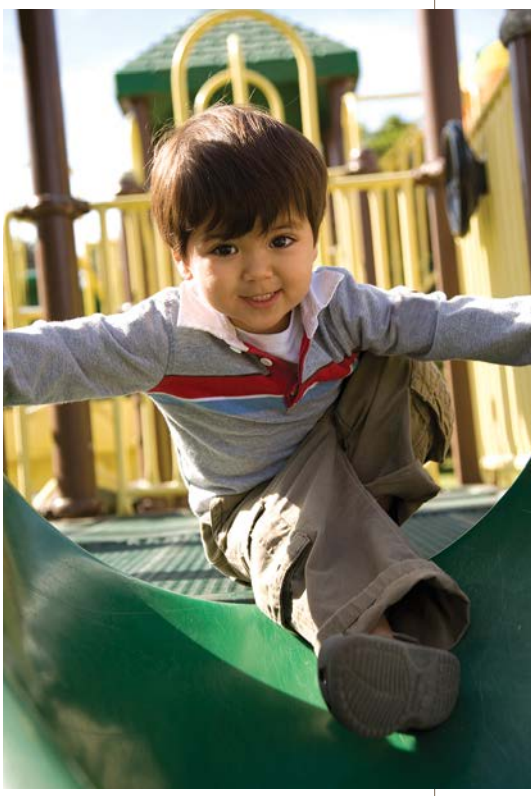
Goal 3: Promote physical activity in 0-5 year olds (ensure all children 0-5 learn developmentally appropriate fine and gross motor skills to help them lead a physically active life).

Objective 3-1: Support physical activity for 0-5 year olds at home and in the family.

- **Strategy a:** Develop education program(s) to educate mothers and families of infants (or expectant families) about age-appropriate physical activity and motor skills development for 0-5 year olds. (See **Health Promotion and Public Education** section)
- **Strategy b:** Build capacity of organizations/institutions serving families of 0-5 year olds (or expectant families) to provide to children or educate families about proper infant/toddler physical activity and motor skill development.

- **Strategy c:** Promote and link families to programs and services that engage children in age-appropriate physical activity (including community-based organizations, city parks and playgrounds, and cultural institutions).

Objective 3-2: Ensure age-appropriate physical activity in childcare settings.



- **Strategy a:** Ensure childcare environments contain sufficient and age-appropriate space and equipment for indoor and outdoor physical activity.
  - **Tactic:** Ensure effective implementation of established standards pertaining to physical activity space and equipment for childcare settings.
  - **Tactic:** Provide financial or in-kind support to childcare settings to ensure they have sufficient space and equipment for age-appropriate physical activity on-site.
  - **Tactic:** Promote the use of community space for physical age-appropriate physical activity (e.g., parks, playgrounds, cultural institutions) by children in childcare during the childcare day and under the supervision of childcare providers.
- **Strategy b:** Ensure the implementation of established guidelines and standards for age-appropriate physical activity (structured and unstructured) during the childcare day.
  - **Tactic:** Train staff on national, state, and local standards that meet evidence-based and best-practice recommendations for age-appropriate physical activity.
  - **Tactic:** Provide toolkits, curricula, and easy-to-follow instructions for age-appropriate games and physical activity to increase provider confidence and capacity to lead physical activity for children in childcare.

Objective 3-3: Ensure that community environments support age-appropriate physical activity for children under the age of five. (See **Physical Activity and the Built Environment** section)

- **Strategy a:** Ensure that street/sidewalk infrastructure can accommodate 0-5 year olds (with specific attention to visibility and pedestrian crosswalk countdown timers).
- **Strategy b:** Ensure that public space accommodates activity among 0-5 year old (e.g., parks, playgrounds, cultural institutions).
- **Strategy c:** Ensure safe walking routes between childcare settings and nearby community resources for field trips, physical activity, and healthy eating.
  - **Tactic:** Implement CLOCC's Neighborhood Walkability Initiative with childcare providers and parents of children in childcare.

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