

## **FORWARD Environmental Scan**

### **(Proposed Justification for Focused Obesity Efforts with Children (0-11))**

In the 2019-2022 strategic plan, FORWARD leaders have been asked to conduct an environment scan to identify the scope of obesity across the county, with a specific focus on children. The scope/scan includes the following:

1. A review of the demographics, the rate of obesity
2. An overview of the industry and research-inspired topics.
3. DuPage County initiatives and FORWARD partnership opportunities.
4. FORWARD’s obesity prevention efforts, including progress and programs
5. A list of potential deliverables, moving forward.

### **MACRO**

The U.S. Census Bureau, *2013-2017 American Community Survey 5-Year Estimates* that there are 931,826 people living in DuPage County. Of the nearly one million people, 26% are children and youth, 19 years old and younger. The specifics are included here.<sup>1</sup>

<b>DuPage County Age Statistics: U.S. Census Bureau</b>		
<b>Under 5 years</b>	55,292	5.90%
<b>5 to 9 years</b>	59,374	6.40%
<b>10 to 14 years</b>	62,672	6.70%
<b>15 to 19 years</b>	63,123	6.80%

According to the Census Data, in 2017, the medium income level in DuPage was \$84,442. 6.2 percent of its residents are living below the poverty line, a number that is lower than the national average of 12.3 percent.<sup>2</sup> In DuPage, the largest demographic living in poverty is Female 25-34, followed by Female 35-44 and then Female 55-64. These numbers likely suggest that many of these women are single mothers with children living in poverty.

According to a study in the March 2018 *Pediatrics*, “*Prevalence of Obesity and Severe Obesity in US Children, 1999-2016*,” rates of overweight and obesity have increased in all age groups among children ages 2-19. The rates generally increased with age, with 41.5 percent of teens having overweight or obesity by 16-19 years of age. Of particular concern, authors said, were continued racial and ethnic disparities--especially at the most extreme weight categories. White and Asian children, for example, showed significantly lower rates of obesity than Hispanic and Black children. Examining short-term trends as well as long-term, researchers also found a sharp increase in obesity since 2015-16 among children ages 2 to 5, especially boys (13.9% of

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<sup>1</sup> American Fact Finder, US Census. 2017  
<https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>

<sup>2</sup> United States Census Bureau. 2010.  
<https://www.census.gov/quickfacts/fact/table/dupagecountyillinois/PST045217>

*two to five years olds are obese). Girls 16 to 19 years old also had a notable jump in overweight rates, from 36 percent to 48 percent.*<sup>3</sup>

Each year, the DuPage County Health Department collects obesity data from schools and WIC. WIC is the USDA's Special Supplemental Nutrition Program for Women, Infants, and Children. The 2018 annual report shows the obesity rate continues to hold steady among school-aged youth. In 2017-2018, more than one in seven (14.5%) kindergarten, sixth grade, and ninth grade public school students in DuPage County had obesity. Additionally, in 2017-2018, 42.5% of students with obesity had an elevated blood pressure reading.<sup>4</sup>

The obesity rate among children entering kindergarten in the fall of 2018 shows XX % of these children are overweight or obese. The obesity rates for children, ages 2 to 4 enrolled in DuPage County's WIC Program (16.4% in 2017) continues to exceed the national WIC rate (14.5% in 2014), stressing the need for early intervention.<sup>5</sup>

The Health Department report breaks down obesity rates by region. The highest rates of obesity are in the Northeast and the Northwest region. These regions include the following municipalities: Bartlett, Wayne, West Chicago, Winfield, Wheaton, Warrenville, Bensenville, Villa Park, Addison, Wooddale, Elmhurst and Oakbrook Terrace. Although there are pockets of high rates in other regions, the greatest need for intervention exists in the northeast and northwest.

To complete the picture, the adult obesity rate in DuPage County was 24.30% in 2015, less than the average in the State of Illinois at 31%. According to the Center for Disease Control, the prevalence of obesity was 39.8% and affected about 93.3 million of US adults in 2015~2016.

There is still work to be done as *obesity is one of the biggest drivers of preventable chronic diseases and healthcare costs in the United States. Currently, estimates for these costs range from \$147 billion to nearly \$210 billion per year.*<sup>6</sup>

*Despite intense clinical and public health focus on obesity and weight-related behaviors in the past decade, results suggest these efforts have yet been able to counteract environmental forces that fuel excess weight gain in children, at least on a national scale. They call for more widely*

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<sup>3</sup> Asheley Cockrell Skinner, Sophie N. Ravanbakht, Joseph A. Skelton, Eliana M. Perrin, Sarah C. Armstrong, et.al. *Prevalence of Obesity and Severe Obesity in US Children, 1999–2016.*  
<http://pediatrics.aappublications.org/content/141/3/e20173459>

<sup>4</sup> DuPage County Health Department. *Childhood Obesity in DuPage County, Annual Report, 2018.*  
<https://www.dupagehealth.org/upload/DuPageObesity2018.pdf>

<sup>6</sup> The State of Obesity: Better Policies for a Healthier America. *The Health Care Cost of Obesity.*  
<https://stateofobesity.org/healthcare-costs-obesity/>

*disseminated resources and additional research into the factors contributing to childhood obesity.*<sup>7</sup>

### **WITHIN THE INDUSTRY and THE RESEARCH SHOWS**

Childhood obesity continues to spark an interest and is widely reported and addressed within the medical field and in early childhood programs and schools. In making the case for early intervention, a recent USA Today author, Kim Painter, reported what researchers have long known *Heavy children often grow up to become heavy teens and adults. The latest research, a study that followed 50,000 German children, found an especially strong risk when children gain weight too rapidly from ages 2 to 6. An early weight surge “is the most powerful predictor of subsequent obesity in adolescence,” The early years are a critical window and perhaps the best time to prevent harm. Even when parents know the risks, they can find it difficult to follow the guidelines laid down by pediatricians, dietitians and fitness groups.*<sup>8</sup> says Michael Freemark, a professor of pediatrics at Duke University School of Medicine. Parents often have the best intentions and want their children to be healthy, but too often there are significant system, policy and environmental obstacles they can't overcome.

For years, The Center for Disease Control (CDC) has been following the rising obesity rates. In a review of state efforts, the CDC reports, *Early care and education (ECE) settings — which include child care centers, family child care homes, prekindergarten classrooms, and Head Start programs — present an important opportunity for early childhood development and obesity prevention. An estimated 41 percent of US children aged 0 to 5 years are cared for weekly in nonparental care arrangements, such as child care centers or family child care homes, although participation rates vary by age group. For example, about 19 percent of children who are younger than 1 year receive care in child care centers or family child care homes. The percentage increases to about 64 percent for children aged 3 to 5 years.*<sup>9</sup>

A California, Nutrition and Physical Activity Self-Assessment Child Care (NAP SACC) pilot study, published in 2017 found the program slowed weight gain in children who participated in programs using this important tool. Many factors including physical activity, nutrition, and sleep can contribute to obesity in early childhood. Any prevention or intervention program must address these three areas, along with limited screen time.

A focus on early childhood is critical for other reasons. The Research Gate report, *Breast-Feeding and the Risk for Childhood Obesity* shows that breastfeeding can have a positive effect on a child's ability to maintain a healthy weight during childhood and beyond. *The data provide support for all mothers to breast-feed their infants to reduce the risk for childhood overweight. Recent meta-analyses concluded that having been breast-fed is associated with a 13–22 percent reduced odds for overweight or obesity in childhood and later in. The basis for such an effect may be behavioral,*

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<sup>7</sup> Asheley Cockrell Skinner, Sophie N. Ravanbakht, Joseph A. Skelton, Eliana M. Perrin, Sarah C. Armstrong, et.al. *Prevalence of Obesity and Severe Obesity in US Children, 1999–2016.*

<http://pediatrics.aappublications.org/content/141/3/e20173459>

<sup>8</sup> “ “

<sup>9</sup> CDC. *Early Care and Education State Indicator Report 2016.*

<https://www.cdc.gov/obesity/downloads/early-care-education-report.pdf>

related to maternal feeding styles that are less controlling and more responsive to infant cues of hunger and satiety. Alternatively, or additionally, the infant's physiologic response to the nutritional or hormonal content of breast milk may explain effects of breast-feeding on growth<sup>10</sup>. Being strong advocates for breastfeeding is essential as FORWARD continues to develop its early childhood work plan.

There is a variety of research that supports the positive impact of early intervention. In her paper, *The Impact of Teachers and Families on Young Children's Eating Behaviors*, author Erin Eliassen had this to say: *The eating behaviors children practice early in life affect their health and nutrition—significant factors in childhood overweight and obesity (Clark et al. 2007)—and may continue to shape food attitudes and eating patterns through adulthood (Birch 1999; Campbell & Crawford 2001; Westenhoefer 2002). Eating environments—mealtime and snack—that make food fun, offer new foods and a variety, and encourage children to taste and choose the foods they want let children develop food attitudes and dietary practices that ultimately support good health (Campbell & Crawford 2001).* Her sources are well-documented and are available for all (see footnote<sup>11</sup>)

The NAP SACC training highlights the research and also cites its sources. Improving the environment of child care and early education facilities will directly impact what children consume and how active they are. A focus on nutrition, physical activity and limited screen time, early on, will help young children develop a foundation of healthy habits for life. Other research suggests that children who eat at home with their family several days a week eat healthier and consume fewer calories. When adults allow children to serve themselves (and limit the use of food for comfort or rewards) and do not interfere with a child's natural instinct to self-regulate their food intake, children are less likely to overeat or to eat when they are not hungry. Studies also show, especially for school age children, that time in front of the television increases a child's snack food consumption and thus overall daily caloric intake and decreased their physical activity level.

Other studies tout the benefits of physical activity. Children who spend time outdoors are more active than their peers who hang out indoors. And children who engage in moderate or vigorous activities do better in school. *Physical Activity is like Medicine*, according to John Ratey, MD, the author of SPARK, a groundbreaking exploration of the connection between exercise and the brain's performance. *We know that exercise helps with executive functions like sequencing, memory, and prioritizing which contribute to necessary skills for success in school and life. Put simply, physical activity in school primes the brain for learning. Physical activity produces endorphins (chemicals in the brain) that regulate mood, pleasure, and pain. An elevated mood can contribute to an "I can do it" attitude which goes a long way as students approach new tasks as challenges, not obstacles.*<sup>12</sup>

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<sup>10</sup> Research Gate. *Breast-Feeding and Risk for Childhood Obesity Does maternal diabetes or obesity status matter?* <https://www.researchgate.net/publication/6791890>

<sup>11</sup> Erin Eliassen. *The Impact of Teachers and Families on Young Children's Eating Behaviors*. NAEYC. Young Children • March 2011

<sup>12</sup> Peaceful Playgrounds. *The Benefits of Physical Activity in Schools*. <https://peacefulplaygrounds.com/benefits-of-physical-activity-in-school/>

Prevention efforts in early childhood are essential but these efforts must continue throughout the school age years to impact weight in a positive way. Since their inception, our counterpart in Cook County, the Consortium to Lower Obesity in Chicago's Children (CLOCC) has focused their efforts in early childhood and schools. The CLOCC blueprint, *Blueprint for Accelerating Progress in Childhood Obesity Prevention in Chicago: The Next Decade* makes the case for engaging schools in obesity prevention. *With up to half of children's waking hours spent in school, the policies and practices of schools have a powerful influence on the health and wellbeing of children and teens. However, the state laws and district policies that shape the daily food, beverage, and activity environments of youth are often inadequate for creating school settings that encourage good health and optimal learning. Comprehensive School Wellness Policies are an essential strategy for ensuring healthy school environments are implemented across states and school districts... Some of the key areas to address in wellness policies include nutrition standards for healthy school meals; restrictions on competitive foods (foods sold outside the school meal program); systematic nutrition education; physical activity opportunities before, during and after the school day; and systematic, quality physical education.*<sup>13</sup>

The CLOCC report is an excellent scan of the situation in Chicago and in Cook County and covers a wide range of intervention strategies including Food and Beverage Access, Physical Activity and the Built Environment, Schools, Early Childhood, Business Sector and Industry Practices and Health Promotion and Public Education.<sup>14</sup> They too have a list of deliverables and been a valuable resource for FORWARD. Their report is worth the read.

### **COMPETITIVE ENVIRONMENT OR POTENTIAL PARTNERS**

FORWARD is a collaborative of hundreds of organizations and individuals who share a similar goal, "fighting obesity and reaching a healthy weight among residents in DuPage". In many ways FORWARD and its collaborative members, including the DuPage County Health Department own the Obesity Prevention Efforts here in DuPage. A number of organizations and individuals are working on specific projects. There are no "real competitors". FORWARD recognizes the contributions each group makes and looks forward to partnering opportunities. For the purpose of brevity, included here are just a few examples of the efforts of our significant partners.

**DuPage County Health Department.** The Health Department is a crucial and valued partner. The Chronic Disease and School Health Grant, with a focus on early childhood, schools and communities funded NAP SACC work, work in schools and the work in hospitals (as work sites). WIC, a department of the Health Department plays a significant role in providing healthy food and productive consultations with families of young children. A project between WIC, Benedictine University and FORWARD attempted to design a program to deliver healthy messaging to WIC families. Community educators deliver 5.4.3.2.1 Go!® messages and other tips. The Health Department continues to fund FORWARD and remains a valuable partner.

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<sup>13</sup> CLOCC. *Blueprint for Accelerating Progress in Childhood Obesity Prevention in Chicago: The Next Decade*. 2012. <http://www.clocc.net/wp-content/uploads/CLOCC-Blueprint-full.pdf>

<sup>14</sup> " "

**YWCA of Metropolitan Chicago, DuPage.** The YWCA has received funding to promote nutrition and physical activity in its sites. They offer *We Chose Health* training comparable to NAP SACC and have been advocates for healthy best practices in DuPage County early childhood programs. They have also been valuable to FORWARD helping to select NAP SACC sites and to set up training. They continue to pursue funding for their early childhood network's "health, nutrition and physical activity" provider best practices.

**Illinois Department of Child Care Licensing and The Child Care and Adult Food Program.** Both of these organizations have a set of established rules required to operate a licensed child care program and to provide funding to sites to offset the cost of providing nutritious meals and snacks. In many ways NAP SACC goes beyond the basic rules and regulations of these two entities but FORWARD recognizes the contributions they make in creating a baseline and providing oversites.

**Regional Office of Education and local schools.** The ROE has been active on the FORWARD board and has consistently focused their efforts on healthy school environments for children. Individual schools vary in their commitment to health but all have some focus. Each school is required to have a Health Committee but with competing demands, it is sometimes difficult to prioritize health and find the time. FORWARD can help (with its partners) by bringing money, technical support and tools to the process supporting the best intentions and efforts of school personnel.

**Action for Healthy Kids.** AFHK has been a significant player in school health. They are well known for their use of the Healthy School Index, their onsite technical support, their implementation grants and their expertise. They also bring awareness to health with their annual celebration of "Every Kid Healthy Week".

**Physician's Network or FORWARD Activity Network (FAN)** Healthcare professionals, especially physicians, play a critical role in preventing and treating obesity. As respected figures that interact with families on a regular basis, physicians are a consistent presence in a child's life and a trusted resource for families. Healthcare providers have the ability to influence healthy lifestyle habits. Research from the Centers for Disease Control and Prevention shows that patients are three times more likely to undertake a weight-loss program if their physician suggests it. Physicians can make a difference. FORWARD, with funding from The Blue Care Network, developed the FORWARD Activity Network to provide physicians and health care professions with tools, resources and referral organizations that promote healthy habits, including nutrition and physical activity. Health care professions are critical in any obesity prevention and treatment initiative. FORWARD remains committed to assisting in any way it can.

**DECC.** Under the guidance of the YWCA and the ROE, with funding from the DuPage Foundation, seven local municipalities have established local early childhood collaboratives. Local collaboratives are a group of community agencies, early childhood providers, and supporters of early childhood who work together to improve kindergarten/school readiness for children in the communities they serve. They focus specifically on increasing access to services

for those in under-resourced areas of the community. The collaboratives focus is broad, covering a variety of areas including health, economic well-being, recreation and education.

Collaborative leaders admit that their approach to health is quite comprehensive. Preventing obesity and maintaining a healthy weight is just one facet. There is a significant opportunity for FORWARD to engage with collaboratives, owning the healthy weight (nutrition and physical activity) focus and inundating the community with healthy living tips and activities.

**IPHI.** The Illinois Public Health Institute (IPHI) received a *State Physical Activity and Nutrition Program* Grant from the CDC. Among other things it allows IPHI to partner with early childhood technical advisors across the state to combat obesity. In October IPHI received a license to the Go NAP SACC! tool (<http://www.gonapsacc.org>). NAP SACC was created in 2002 by a team of child obesity researchers at UNC Chapel Hill in association with colleagues in the Nutrition Services branch at the North Carolina Division of Public Health. The tool includes a five step process that sets programs up to make systems, policy and environmental changes. The steps include: engaging early childhood providers, completing self-assessments, developing action plans, implementing change and evaluating success. The tool has been updated and is now an easy-to-use on-line assessment that allows for easy tracking and access to a number of tip sheets and materials for staff and families. The IPHI efforts allow FORWARD staff to be a part of a network of technical advisors, sharing resources and it gives us access to an end of grant evaluation process. FORWARD is excited about this opportunity.

## **INTERNAL**

In conversations with the FORWARD Board of Directors during the strategic planning process, several members expressed an interest in narrowing the scope of our work with a specific focus on children birth to twelve. Directors felt that FORWARD didn't have the capacity to go deep in obesity prevention across the lifespan and if we could influence children early on, developing in them healthy habits they'll carry into adult, we could have the greatest impact. It also allows us to build on the progress we've made to date in early childhood programs and schools.

Over the past five years, FORWARD has "gone deep" into twenty early childhood centers, using NAP SACC to assess centers, develop action plans and create systems, policy and environmental changes. All centers have been successful in making critical changes to their nutrition, healthy eating and physical activity practices. During the same period, FORWARD has worked with the Action for Healthy Kids in XX schools, using the Healthy School Index. These schools have completed self-assessments and action plans and have implemented systems, policy and environmental changes. We have laid the groundwork and are well-positioned to continue this work.

FORWARD, in collaboration with the Health Department and the YWCA has trained over five hundred aides, teachers, directors and administrators in nutrition, healthy eating, physical activity and screen time best practices. This training has impacted the way they work with young children, but it also has allowed them to look into their own healthy habits and to discuss the healthy changes they could make with their own families.

Several years ago, FORWARD adopted CLOCC's public education campaign, promoting 5.4.3.2.1 Go!® and FiveSMART®. These two campaigns succinctly identify and suggest to families best practices that impact a young child's ability to develop healthy habits early on and maintain a healthy weight. FORWARD and Health Department staff have used these two campaigns, educating individuals and groups throughout DuPage. These same tools were made available to physicians' offices in DuPage to share with their patients. While working in one of FORWARD's early childhood NAP SACC sites, one mother picked up the 5.4.3.2.1. Go!® flyer and reported, "I saw this in my pediatrician's office".

The strategic plan also looks at FORWARD's capacity to deliver on specific objectives, tasks and programs. Given FORWARD's past successes, the organization is well-positioned to secure funding and continue this important work. FORWARD is an approved user of the NAPSACC online tools, through the state of Illinois. We have one technical advisor in place and could easily train others if needed. The YWCA is ready to work with FORWARD to reach early childhood educators and providers. As we look for ways to move our school projects forward, many find the Healthy School Index tool quite cumbersome. If we can secure a comparable tool and additional funding, we can continue our AFHK partnership or even secure new partners to continue this work. CLOCC has been very generous, allowing us to use their resources and campaigns, because consistent messaging and several doses of the same message will have the greatest impact. People will remember, make the necessary changes and adopt these healthy habits. These materials are still relevant to new families.

With 55,292 preschoolers in DuPage County, FORWARD has just touched the surface with the 1594 children (just 2.9 percent of the total) enrolled in its twenty NAP SACC sites and the additional preschoolers impacted by YWCA/NAP SACC training. Early on, it was evident we could have the greatest impact if we started our work in large early childhood programs, serving 50 to 125 children, in municipalities with the highest obesity rates. It was certainly the right place to begin our work but given the majority of children are in settings other than child care centers and school based early education programs, we needed to expand our reach. The target group we have yet to work with are children cared for in family child care homes, both licensed and license-exempt (relatives or very small programs). As we explore funding opportunities, children enrolled in WIC, children cared for in family-child care-homes and children cared for at home by a parent, should be a priority.

Continuing with all of these projects is contingent upon the organization's ability to secure funding. This remains our greatest opportunity and threat. With the help of our partners, our board members and our coalition supporters, we are confident funds can be secured. These projects: work in early childhood, work in schools and a public education campaign to the general public are likely priorities.

**POSSIBLE FORWARD RECOMMENDATIONS FOR THE NEXT THREE YEARS (and therefore requests for funding)**

FORWARD staff understand the Board of Directors, after reviewing this environmental scan, must authorize the staff to move forward as they see fit. If they select children birth to twelve as a high priority, the staff are positioned to move forward in these seven deliverables.

1. Expanding NAP SACC into additional early childhood programs, including family home child care programs. Completing a self-assessment, setting goals, building an action plan, working the plan and evaluating success (reassess).
2. Expanding FORWARD's work (through partners) in elementary schools, using the School Health Index or a comparable tool. Completing a self-assessment, setting goals, building an action plan, working the plan and evaluating success (reassess).
3. Working with WIC staff to develop strategies to reduce obesity and build healthier habits.
4. Working with partners to create a Public Education Campaign, including YWCA newsletters, partner newsletters, FORWARD newsletter, website and more to promote healthy weight, breastfeeding, nutrition, physical activity and limited screen time.
5. Enhancing the FORWARD Action Network (Physician's Network) and connecting local health care providers to local early childhood collaboratives and schools.
6. Training and educating early childhood providers and school personnel in best practices, current research, working with families, developing healthy habits and creating systems, policy and environmental change.
7. Leveraging our relationship with DECC to work in local communities, delivering consistent messages and best practices.
8. Build the capacity of FORWARD to achieve its goals. Capacity building will include coalition building, fund development, developing a marketing and communications plan, board development and organizational strength and effectiveness.