Policies to Support Obesity Prevention for Children: A Focus on of Early Childhood Policies

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The epidemic of childhood obesity is one of the most urgent health challenges facing our nation today. Obesity rates among the nation’s children have tripled in the past 30 years.¹ As of 2008, more than 30% of children aged 2 to 19 years had a body mass index (BMI) at or above the 85th percentile for their age.² Individuals make choices that influence their weight (or that of their children, especially in the case of very young children), including what and how much they eat and their participation in physical activity. Interventions to influence those choices and thus promote healthy weight exist on two broad levels: individual-level strategies such as clinical counseling on healthy weight and population-level strategies to shape the environment in which people make choices that influence their weight status, for example, providing safe places for children to play outside or access to affordable fresh fruits and vegetables.

Promoting environments whereby the healthy choice is the easy choice for individuals is the realm of environmental systems change. Landmark national initiatives, both in the public and private sectors, have promoted and funded policy and environmental change strategies for obesity prevention. Examples include the Centers for Disease Control and Prevention’s (CDC’s) Communities Putting Prevention to Work Initiative funded by the American Reinvestment and Recovery Act and the childhood obesity initiatives of the Robert Wood Johnson Foundation.³⁴ Enacting and protecting policies that promote healthy environments and thus support individuals in making healthier choices are levers for positively altering the environment in which individuals make the choices influencing their weight.

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Both the environment potentially affecting obesity and the policies potentially affecting the environment are expansive categories. Policies exist, and therefore policy change may happen on a variety of levels, from worksite, to community, state, national, and even international levels. The environment affecting obesity can mean myriad specific contexts, including but not limited to the following: food policy and farm support, the built environment (ie, how buildings, roads, and communities are physically designed and built, including sidewalks and bike paths for streets or accessible stairways for buildings), transportation, schools and early child care centers and worksites, and the environment in which clinical care takes place (eg, fast food in children’s hospitals, formula samples in newborn nurseries).

Given the potential for policy change to promote healthy environments and the broad definition of the environment described earlier, this article focuses on the example of early childhood-related policies as a window on policies to support obesity prevention. We include a discussion of policy on more macro, public levels such as federal or state policy and legislation as well as more micro, often private levels such as institutional and worksite policies. To further structure our discussion of areas of environment, we incorporate elements of the pillars and framework set forth in the 2010 White House Task Force on Childhood Obesity Report to the President. We include a discussion of (1) breastfeeding as an example of an early childhood-specific issue, (2) providing healthy affordable food and information about food in community and child care settings, and (3) increasing physical activity. We also include information on the role of the health care sector using the example of promoting body mass screening and monitoring and highlight recommendations from a recent Institute of Medicine (IOM) report on early childhood prevention policies. We also make the case for pediatricians and other pediatric health care providers to take an active role in policy advocacy and feature resources for advocacy.

**IMPORTANCE OF EARLY CHILDHOOD-RELATED POLICIES AND PROMOTING BREASTFEEDING**

As of 2008, nearly 10% of infants and toddlers (birth through age 2 years) were at or above the 95th percentile of weight for length, and more than 20% of children aged 2 to 5 years were overweight or obese (BMI of 85% or more). A variety of expert committees, including the IOM and the White House Task Force on Childhood Obesity, have emphasized the importance of early childhood as a unique opportunity for prevention of childhood obesity. Early childhood contrasts to other periods of childhood and adulthood in the potential to establish positive healthy weight behaviors rather than needing to reverse or alter existing negative behaviors. The environment in which children spend their first years of life as well as the individuals who care for them (parents and other primary caregivers such as day care providers and extended family) and the environmental choices available to those caregivers influence children’s developing behaviors and habits related to physical activity and eating and may help to shape developmental pathways to positively (or negatively) affect long-term risk of obesity and associated chronic diseases.

**Overview of Policy Opportunities in Early Care and Education Settings**

Nationally, nearly 6 million children younger than 5 years, representing nearly 30% of American children, are enrolled in child care (including home day care) facilities, and they spend an average of more than 30 hours per week in these facilities.
care environments and the caregivers and teachers who staff them may contribute significantly to shaping children’s emerging patterns for eating and drinking, participating in physical activity, and having screen time. States vary widely in their regulations for nutrition and physical activity, presenting an opportunity for strengthening and unifying licensing requirements for requiring healthier food, more physical activity, and less screen time.8,9

Regarding screen time, the American Academy of Pediatrics (AAP) recommends no television viewing for children younger than 2 years and limiting total media time to no more than 1 to 2 hours per day of quality programming for children aged 2 years and older.10 Taking this recommendation to the child care setting, the IOM has recommended that “adults working with children should limit screen time, including television, cell phone, or digital media, to less than two hours per day for children aged two to five.”6 There is a policy opportunity for regulations affecting child care centers to align with these recommendations as well as for academic training curricula for providers (undergraduate, graduate, and continuing education) to be modified to include current guidelines.

In 2011, a consortium of leading clinical and governmental organizations, including the AAP, the American Public Health Association, and the Maternal and Child Health Bureau released a revised set of evidence-based and expert consensus national standards for nutrition, physical activity, and screen time in all early care settings. These standards include age-specific nutrition requirements for infants, toddlers, and preschoolers; standards on food brought from home, meal service and supervision, nutrition education, and nutrition policies; standards concerning opportunities for physical activity and playtime; and guidelines for limiting screen time. The investigators also included suggested uses of these standards for families, caregivers and teachers, healthcare professionals, regulators, early childhood systems, policymakers, and academic faculty of early childhood programs.11 Connecting quality improvement to policy, if these standards around nutrition, physical activity, and screen time are prominently included in regulatory and/or quality rating systems for child care facilities, and if those ratings systems influence payment to or licensing of facilities, the standards take on increased policy import.

Promoting Breastfeeding

The White House Task Force highlighted concerns specific to early childhood as one of its pillars, including the example of breastfeeding promotion. Breastfeeding may be protective against subsequent obesity for the breastfed infant.12–14 In 2010, 75% of US mothers initiated breastfeeding, but only 13% were exclusively breastfeeding their infants at six months (43% any breastfeeding). These rates also reveal substantial geographic and racial/ethnic disparities.15,16 Healthy People 2020 established targets for 82% of infants to be breastfed, 61% breastfed through six months, and 26% exclusively breastfed through six months.17 These goals are aligned with recommendations of the AAP, the World Health Organization, the American College of Obstetricians and Gynecologists, the US Preventive Services Task Force, and the IOM to encourage exclusive breastfeeding through 6 months of life.6,18–20

Environments that may have a key role in promoting breastfeeding include clinical settings (both regarding prenatal care and the facility at which a baby is born and spends his/her first days of life) for supporting breastfeeding initiation in the immediate postpartum. In addition, community environments such as workplaces and child care centers may support exclusive breastfeeding through 6 months and breastfeeding continuing through at least 1 year of life.
Promoting baby-friendly hospitals

The environment in which mothers deliver their infants and where the infants spend their first few days of life exerts a disproportionately large influence on the likelihood that the mothers will initiate breastfeeding and continue to breastfeed their infants (at all and exclusively) for an extended period. The World Health Organization identified and codified a set of practices, the Ten Steps to Successful Breastfeeding, through the Baby-Friendly Hospital Initiative, which characterize hospital environments that promote breastfeeding (Box 1).19,21–23 Baby-Friendly USA provides the baby-friendly designation to hospitals demonstrating that they undertake the Ten Steps.

Aligned with the Ten Steps, Healthy People 2020 set goals of reducing the proportion of breastfed infants who receive formula supplementation within the first 2 days of life from 24% to 14% and increasing the proportion of live births that occur in facilities providing the recommended care for breastfeeding mothers and their babies from 3% to 8%.17 Yet the CDC recently reported that 95% of hospitals lack maternity care policies to fully support breastfeeding mothers and their infants.24 (There is some debate surrounding exclusive breastfeeding and formula restriction in hospitals in response to the Joint Commission’s inclusion of exclusive breastfeeding in its 2011 perinatal core measures set.25 The investigators of a recent commentary in *Pediatrics* argued that providing small amounts of formula supplementation in the hospital may actually increase mothers’ breastfeeding self-efficacy. They questioned whether entirely restricting formula and including exclusive breastfeeding as a quality indicator truly are warranted; their position prompted follow-up debate.26–28)

A variety of policy-level interventions may promote baby-friendly hospitals and elements of the Ten Steps, from the micro level of a particular hospital undertaking the Ten Steps to national initiatives that promote regional or nationwide uptake of baby-friendly policies. In addition to recommending the creation and enforcement of specific policies at the hospital level, the Ten Steps speak of opportunities to train

| **Box 1**  
The ten steps to successful breastfeeding |
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<tr>
<td>1. Maintain a written breastfeeding policy that is routinely communicated to all health care staff.</td>
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<tr>
<td>2. Train all health care staff in skills necessary to implement this policy.</td>
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<td>3. Inform all pregnant women about the benefits and management of breastfeeding.</td>
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<td>4. Help mothers initiate breastfeeding within 1 hour of birth.</td>
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<td>5. Show mothers how to breastfeed and how to maintain lactation, even if they are separated from their infants.</td>
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<td>6. Give infants no food or drink other than breast milk, unless medically indicated.</td>
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<td>7. Practice “rooming in,” allowing mothers and infants to remain together 24 hours a day.</td>
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<td>8. Encourage unrestricted breastfeeding.</td>
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<td>9. Give no pacifiers or artificial nipples to breastfeeding infants.</td>
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<tr>
<td>10. Foster the establishment of breastfeeding support groups, and refer mothers to them on discharge from the hospital or clinic.</td>
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From World Health Organization. Evidence for the ten steps to successful breastfeeding. Geneva, Switzerland; World Health Organization, 1998; with permission.
health care staff in supporting breastfeeding and of establishing supports and connections after hospital discharge to provide linkage between the clinical and community environments. Specific policies at the organizational level may require these supports and training elements as well as specifically build them into individual accreditation requirements. In addition, health plans or government could play a role in policy change by offering enhanced financial incentives in the way of higher payment levels to hospitals that meet thresholds of exclusive breastfeeding or to facilities that achieve the baby-friendly designation, either directly or through incorporation of such practices into organizational accreditation processes.

Promoting breastfeeding in the community, including worksites and child care centers

Beyond the immediate postpartum, community and workplace environments may support mothers and infants in sustaining exclusive breastfeeding through the recommended 6 months and breastfeeding through 1 year of life. Regarding health policy and health insurance, the Department of Health and Human Services has adopted recommendations from the IOM requiring new health plans to cover costs of breastfeeding support, supplies (eg, breastfeeding equipment such as pumps), and counseling without cost sharing to mothers, beginning in August 2012.29–31

The work environment may support nursing mothers who return to work. When the Patient Protection and Affordable Care Act (ie, national health reform) was passed in 2010,32 standards went into effect setting standards for worksites regarding breastfeeding. Specifically, the Affordable Care Act amended Section 7 of the Fair Labor Standards Act to require that worksites provide nursing mothers with sufficient break time and a clean private place that is not a bathroom to nurse or to express breast milk through the first year of a child’s life.33 In addition to worksites, child care facilities may support breastfeeding by providing places for women to nurse or to express breast milk, providing sufficient storage for breast milk, and training staff on supporting breastfeeding. These requirements may be reinforced through organizational policies and/or regulatory quality standards.

The IOM has recommended that “adults who work with infants and their families should promote and support exclusive breastfeeding for six months and continuation of breastfeeding in conjunction with complementary foods for one year or more.”6[Rec. 4-1] This includes policies promoting baby-friendly initiatives; ensuring that public health staff, such as in the Women, Infants, and Children (WIC) program receive training in breastfeeding support; regulating how hospitals’ promotional materials show first feeding and whether they may supply formula in newborn nurseries; and promoting supportive worksite policies. The Wisconsin Department of Health has developed the Ten Steps to Breastfeeding-Friendly Childcare Centers Resource Kit, a guide for centers to use in revising their own policies to support breastfeeding.34 Regulatory bodies might include standards from this or similar guides in quality rankings.

Health plans again may take a role in policy change by providing sufficient reimbursement for continued breastfeeding counseling or by providing higher levels of reimbursement to pediatric practices that demonstrate improvement in breastfeeding support practices or outcomes, such as a meeting a certain threshold for breastfeeding or exclusive breastfeeding in their patient populations (accounting for case mix). Ideally, were health plans to implement such policies, they would partner with community agencies and organizations to support community-level programs and policies enabling mothers to sustain breastfeeding.35

At the local level, there are many opportunities to foster community environments supportive of breastfeeding. Local governments may strengthen and promote
networks such as La Leche League and Nursing Mother’s Councils via increased funding or public awareness campaigns or by providing space in municipal facilities for these groups to meet. These governments may enact, publicize, and enforce and monitor policies on how community facilities support breastfeeding (eg, incentives for restaurants that post breastfeeding-friendly signage). Additional policy opportunities include working with local health departments to expand programs that provide breastfeeding support in communities, such as the WIC Breastfeeding Peer Counseling program, Early Head Start, and home visitation programs.5,6

PROVIDING HEALTHY AFFORDABLE FOOD AND INFORMATION ABOUT FOOD IN COMMUNITY AND CHILD CARE SETTINGS

Children set patterns for eating in early childhood that carry through their lives. Yet, according to a 2011 report from the IOM, most young children do not eat nutritious diets.6 Early childhood is an optimal period for providing children with a range of healthy foods because young children with early experiences eating a variety of healthy foods are more likely to continue to eat those foods subsequently.36 Thus, the choices their caregivers have to improve nutrition choices in community settings and in the child care environment can set young children on a positive trajectory for healthy weight. A variety of environmental and policy factors related to healthy food may shape the food choices available to families and child care providers, which, in turn, may enable parents and caregivers to positively shape young children’s eating environments by having the healthy choice be the easy choice in their environments.

Federal Food Assistance Programs and Food Access

Federal food assistance programs potentially affecting young children and their families include the Supplemental Nutrition Assistance Program (SNAP, more than one-quarter of US children will have enrolled in SNAP between birth and age 5 years), the Special Supplemental Nutrition Program for the WIC (serves more than 9 million women, infants, and children), the Child and Adult Care Food Program (CACFP, serves more than 3 million children), the WIC Farmers’ Market Nutrition Program (serves more than 2 million WIC participants), and the Emergency Food Assistance Program.37–40 Additional programs such as the School Breakfast Program, National School Lunch Program, and Summer Food Service Program focus on school-aged children.6(pp4–15),37 The IOM recommends that government agencies promote access to healthy affordable foods by “maximizing participation in federal nutrition assistance programs and increasing access to healthy foods at the community level.”6(Rec .4–5)

The neighborhood food environment, including both availability of healthy food in a family’s environment and ease of access to those foods, influences a family’s nutrition choices.38 Supermarkets tend to provide the greatest variety of high-quality healthy food at the lowest cost, in contrast to convenience stores, which tend to offer more processed food and less fresh produce and at higher cost. Review of research demonstrates that better access to supermarkets is associated with healthier diet and possibly with lower rates of obesity.39 Easy access to supermarkets may be particularly important for caregivers with young children. In those families, an errand to get food may be even more difficult when it entails one or more strollers, diaper bags, and/or highly active preschoolers in tow. Bringing access to these children and their families is thus even more important. According to the US Department of Agriculture’s (USDA’s) report on food deserts, 23.5 million people, including 6.5 million children, live in low-income areas more than 1 mile from a supermarket or larger grocery store.5,40 Currently, the US Departments of the Treasury, Agriculture, and Health and Human
Services are collaborating to develop common evaluation measures of impacts of food deserts and of efforts to eliminate them. These same 3 federal agencies comprise the Healthy Food Financing Initiative, which includes a variety of programs such as funding of private sector financing for healthy food options and promoting economic development in rural areas. The initiative aims to fund the creation of healthy food options and to work toward eliminating food deserts in underserved urban and rural communities nationwide.

There are a variety of policy incentives and disincentives on multiple levels of government that may influence access to affordable healthy foods in communities. Indeed, there are actions community members themselves can take, working in partnerships with local governments. These members may, for example, work to bring supermarkets to underserved neighborhoods (eg, work to lower insurance premiums in neighborhoods where high premiums discourage chain supermarkets from opening a store), help convenience stores increase their supply of fresh produce, or ease permitting requirements to attract farmers’ markets, farm stands, or mobile vendors into a community.

Citizens and local governments also may create food policy councils for joint work on healthy food access. An area of policy in which they may work is land use and food planning urban policy to promote zoning and planning conducive to urban agriculture such as community gardens. The White House Task Force documented several examples of such policies: Vendors in Kansas City who sell healthy foods pay a reduced permit fee, New York City uses a combination of incentives and restrictions to get green produce carts in areas of the city with the least access to fresh fruits and vegetables, and Detroit and Cleveland have reclaimed acres of vacant land and lots for community gardens.

Additional examples of food access policy change are on the level of the clinic/worksite setting, as we further describe in the section on dietary guidelines. Aligned with the IOM’s recommendation, pediatric providers may encourage their hospital or worksite “to implement policies and practices consistent with the Dietary Guidelines, to promote healthy foods and beverages and reduce or eliminate the availability of calorie-dense, nutrient-poor foods.”

Food Marketing

Very young children are the target audience of significant and increasing food marketing, and research has demonstrated that such marketing influences their preferences. For instance, young children may be more likely to choose food products featuring cartoon characters on the package. National-level initiatives, both government-based, such as the 2006 Joint Task Force on Media and Childhood Obesity, and industry self-regulation attempts, such as the 2006 Children’s Food and Beverage Advertising Initiative (CFBAI) of the Council of Better Business Bureaus, restricting marketing or even developing consensus-based nutrition standards have had challenges moving forward. The Joint Task Force was unable to agree on a uniform set of nutritional standards or on how media companies would be required to enforce advertising limits, and the Federal Trade Commission (FTC) released a report in 2008 recommending several enhancements to the standards set by the CFBAI (eg, originally, the standards applied only to certain forms of advertising; FTC criticized the quality and consistency of the nutritional standards). The CFBAI did release a new agreement in July 2011 regarding regulating marketing and advertising directed at children.

The FTC is limited in its ability to restrict food marketing to children because of free speech considerations. In 2011, the FTC created draft voluntary standards as required
by Congress (the comment period for which closed in July), prompting mixed reac-
tions from a variety of stakeholders from industry to public health. The Alliance for
American Advertising opposed the standards, claiming that they would restrict adver-
tising to adults in addition to children, would contain unnecessarily restrictive nutrition
principles, were presented in the absence of an open process or supporting research
evidence from the Working Group, would not pass a First Amendment analysis, and
would eliminate thousands of jobs in their industry. The Public Health Law Center
strongly supported the standards and proposed revisions to further strengthen
them, including providing uniform standards for what constitutes marketing or tar-
geted to children and teenagers.

Despite these challenges, the IOM continues to recommend that “the Federal Trade
Commission, the U.S. Department of Agriculture, Centers for Disease Control and
Prevention, and the Food and Drug Administration should continue their work to
establish and monitor the implementation of uniform voluntary national nutrition and
marketing standards for food and beverage products marketed to children.”

Separate from national-level regulatory efforts, local governments or worksites may
establish policies to restrict food marketing directed at children. School systems,
for example, may regulate commercial advertising from sugar-sweetened beverage
companies.

**Food Pricing**

In addition to physical access to healthy food and food marketing, pricing of healthy
food (both in the absolute and relative pricing of unhealthy foods) may drive families’
purchasing choices. Research has demonstrated that families will purchase healthier
foods when the prices of those foods are reduced, and they will decrease purchase of
healthier foods as those prices increase. According to the White House Task
Force Report, the price of fruits and vegetables has increased nearly twice as fast
as the price of carbonated beverages over the last 30 years. Areas of policy influence
on food pricing include agriculture policy, tax policy, and subsidy policy.

**Agriculture policy**

Regarding agriculture policy, nearly all agriculture subsidies to farmers are for 5 crops:
soybeans, corn, rice, wheat, and cotton. Agriculture subsidies thus do not tend to
promote lower prices for a range of crops that might, in turn, support a well-
balanced diet for families. For the first time, the Food, Conservation, and Energy
Act of 2008 (also known as the Farm Bill) did include $1.3 billion in new funding
over 10 years for so-called specialty crops including fruits, vegetables, and nuts,
which have higher production costs than the 5 most heavily subsidized crops, and
increased funding for programs that support local agriculture and healthy foods.

In terms of food supply, the USDA’s Economic Research Service has estimated the
changes in agriculture that would be required to supply Americans to meet the 2010
Dietary Guidelines, and these changes are vast. USDA estimates that fruit production
would have to increase by 117%, representing an additional 4.1 million acres; vege-
table production would need to increase by 18% or 19.4 billion pounds per year;
and farm milk production would have to increase approximately 108 billion pounds
per year to meet potential demand for milk and milk products.

In terms of agriculture policy, perhaps the most significant piece of Federal legisla-
tion is the Farm Bill. Set to expire in 2012, this legislation has potentially far-reaching
implications for obesity prevention and public health efforts on the policy and environ-
mental systems level because it includes provisions for nutrition, farm commodity
support, conservation, crop insurance, livestock, and energy and forestry. The
Food, Conservation, and Energy Act of 2008 included $284 billion over 5 years and $604 billion over 10 years; 67% of those funds went toward nutrition provisions. Health-related initiatives in the 2008 bill included those related to distribution and access (eg, Farmers’ Market Promotion Program), production practices, research (eg, a national study on food deserts40), education, and affordability and pricing. The anticipated reauthorization of this bill in 2012 thus represents a significant opportunity for public health coalition building around obesity prevention provisions, including those to benefit young children and their families.51

**Tax policy: example of sugar-sweetened beverages**

In addition to agriculture policy, tax policy relevant to food and beverage influences food pricing and may influence families’ choices on food purchasing. The most current and hotly debated example is that of possible taxes on sugar-sweetened beverages. Nearly 60% of children aged 2 and 3 years drink at least one serving of 100% fruit juice in a day, and 46% drink sweetened beverages, including fruit-flavored drinks, soda, coffee, or tea.53 The second largest source of energy in the diet of 2- and 3-year-old children is 100% fruit juice.54 Researchers and policy advocates have proposed a penny-per-ounce tax on sugar-sweetened beverages. According to recently published modeling data from Yale’s Rudd Center, a nationwide penny-per-ounce tax on sugar-sweetened beverages could bring in nearly $80 billion in revenue between 2010 and 2015, and this figure would increase to $118 billion if the tax included diet varieties of these beverages. In addition, they estimated that this tax could result in a 24% decrease in sugar-sweetened beverage consumption over this same period.55

**Subsidy policy**

An alternative policy approach to taxes on unhealthy food or beverages is subsidy policy to encourage families’ purchasing and consumption of healthy food such as fresh fruits and vegetables. Some research has shown that subsidies do affect increased consumption of healthier foods. In one study, a 50% price reduction on fresh fruit and baby carrots in 2 secondary school cafeterias resulted in a 4-fold increase in fresh fruit sales and a 2-fold increase in baby carrot sales.56 Emerging evidence suggests that programs such as the CACFP that subsidize nutritious meals in child care and other school settings may be associated with healthier weight, eg, with lower BMI.37 Additional examples of subsidy programs are those such as Wholesome Wave’s Double Value Coupon Program, which operates in 26 states and offers incentives for families to use their SNAP electronic benefit transfer cards to purchase fresh fruits and vegetables at farmers’ markets.57,58

**Dietary Guidelines**

One area of environmental systems influence is the degree to which worksites, communities, and government programs disseminate and/or adopt nutritional standards and guidelines in their institutional policies. In 2010, the USDA and the Department of Health and Human Services released new Dietary Guidelines for Americans reflecting updated nutrition standards and thus providing up-to-date nutrition information for organizations or programs to use in policies they implement.59 The reach of these programs (and therefore the policies guiding them) potentially is vast in terms of the number of children they serve. On the federal level alone, the SNAP (formerly Food Stamps) is one of several programs required to apply the Dietary Guidelines. One-half of all American children will participate in SNAP at some point during their childhood up to age 20 years, including 90% of African American children; more than a quarter of children will participate in SNAP between birth and age 5 years.60
Even outside of federal programs such as the SNAP, programs at the state, local, and even worksite level may adopt policies requiring that their programs adhere to federal dietary guidelines. A network of health care facilities, for example, may set a policy that its hospital cafeterias follow the Dietary Guidelines in its hospital cafeterias, eliminate fast food from its facilities, and also fund signage and other educational information for its patients on how to make healthier food choices. The 2010 Dietary Guidelines begin at age 2 years, and the IOM has recommended that future editions establish guidelines for children from birth to age 2 years.6

Access to Healthy Food in Child Care Centers

The Healthy, Hunger-Free Kids Act was enacted in December 2010 and represents landmark legislation particularly affecting school-aged children. In school-aged populations, the act included increasing access to universal free school meals, giving USDA authority to set nutritional standards for all foods regularly sold in schools during the school day and increasing funding to schools that meet updated nutritional standards. The act also contains important provisions affecting young children, including revisions to the CACFP and the WIC. Regarding CACFP, the act requires that nutrition standards must now comply with the new 2010 Dietary Guidelines; it enhances USDA training, providing technical assistance and educational materials available to child care providers in helping them to serve healthier food; authorizes research regarding implementation of healthy eating and wellness practices in child care settings, including barriers and facilitators to implementation; and expands eligibility and simplifies program requirements. Provisions related to the WIC include allowing WIC agencies to certify children for eligibility for 1 year rather than 6 months, promoting breastfeeding by expanding collection of WIC breastfeeding data and making funds available for purchase of breast pumps, and increasing WIC funding for infrastructure and research.41,61,62

PROMOTING PHYSICAL ACTIVITY IN CHILD CARE AND THE COMMUNITY

Physical activity represents another critical piece in the healthy weight equation, including fostering environments that are safe for and promoting of physical activity for young children and their families. National guidelines that advocate for increased physical activity as a strategy for obesity prevention include the 2010 Dietary Guidelines for Americans, The Surgeon General’s Vision for a Healthy and Fit Nation, and the 2008 Physical Activity Guidelines for Americans (which start at age 6 years).59,63,64 The IOM reported that many children younger than 5 years do not meet physical activity guidelines set by expert panels.6 Further, this IOM panel recommended the following 3 goals for promoting physical activity in young children: (1) to increase young children’s levels of physical activity, (2) to decrease their levels of sedentary behavior, and (3) to help adults adopt policies to accomplish the first 2 goals. The panel further recommended a variety of strategies to further these goals in the child care environment, which we overview in Table 1. These strategies included institutional-level and perhaps regulatory policies for providing indoor and outdoor play environments with adequate space per child and for promoting active time and limiting sitting or standing time in preschoolers and toddlers, as well as education-level policy changes to include curriculum content for early childhood providers on physical activity in young children.

Promoting Physical Activity in the Community

There are a variety of environmental and policy strategies to promote physical activity for young children in the community. One set of strategies relates to the community’s
Table 1  
Physical activity-related strategies to promote in the child care environment

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<tr>
<th>Goal and Associated IOM Recommendation</th>
<th>Strategies in Child Care Settings</th>
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| Increase physical activity in young children  
IOM Rec. 3-1: child care regulatory agencies should require child care providers and early childhood educators to provide infants, toddlers, and preschool children with opportunities to be physically active throughout the day | • Provide indoor and outdoor play environments at child care centers with adequate space per child and a variety of portable play equipment (note: centers currently vary in the degree to which their outdoor play spaces meet national physical activity and safety standards)  
• Create environments that provide opportunities for children with disabilities to be physically active  
• Establish policies in child care centers promoting daily "tummy time" for infants younger than 6 y and opportunities for 15 min/h of physical activity for toddlers and preschoolers |
| Decrease sedentary behavior in young children  
IOM Rec. 3-3: child care regulatory agencies should require child care providers and early childhood educators to allow infants, toddlers, and preschoolers to move freely by limiting the use of equipment that restricts infants' movement and by implementing appropriate strategies to ensure that the amount of time toddlers and preschoolers spend sitting or standing still is limited | • Establish policies that limit sitting or standing activities for toddlers and preschoolers to a maximum of 30 min at a time  
• Establish policies for the use of strollers for toddlers and preschoolers only when necessary |
| Help adults increase young children's physical activity and decrease their levels of sedentary behavior  
IOM Rec. 3-4: Health and education professionals providing guidance to parents of young children and those working with young children should be trained in ways to increase children's physical activity and decrease their sedentary behavior, and in how to counsel parents about their children's physical activity | • Include content in undergraduate and graduate educational programs for early childhood professionals on increasing physical activity and decreasing sedentary behavior  
• Provide continuing education opportunities for providers on increasing physical activity and decreasing sedentary behavior in young children  
• Encourage child care regulatory agencies to establish policies fostering yearly consultation between centers and an early childhood experts on physical activity |


The built environment, because the design of our communities may promote or inhibit physical activity. The built environment includes “spaces such as buildings and streets that are deliberately constructed as well as outdoor spaces that are altered in some way by human activity.” Urban sprawl has been shown to be associated with obesity. Conversely, communities that are more walkable and bikeable, with policies and funding for complete streets that promote safe transportation for pedestrians of all ages and abilities (including pedestrians pushing strollers or in...
wheelchairs), cyclists, public transportation, and cars\textsuperscript{68} may promote physical activity and therefore healthy weight. Neighborhood design and urban planning policies may increase incidental physical activity or the likelihood that a family will walk to the store or that their children will walk to school rather than ride in a car.\textsuperscript{66} The IOM recommends that “the community and its built environment should promote physical activity for children from birth to age five\textsuperscript{66(Rec.3-2)} in indoor and outdoor settings and for young children with a range of abilities.

In addition to the built environment, it is important to consider the social environment, that is, “how community members feel about their neighborhood, its safety, and their interest in participating in community-based physical activity.”\textsuperscript{5(p79)} For example, outdoor play environments such as community parks and playgrounds increase children’s level of physical activity during unstructured time.\textsuperscript{69} Children are more likely to use these facilities if they are easy and safe to access and if the sites, themselves, are safe and in good repair.\textsuperscript{70} Across the country, there are disparities in access to safe places to play according to the socioeconomic position of the community and its residents.\textsuperscript{66} Community members may work together with law enforcement, parks and recreation, and local governments to enhance safety and access to community facilities.

Another strategy for promoting physical activity for young children and families in the community is promoting the establishment of joint use agreements, which allow community members and programs to use schools’ physical activity facilities during nonschool hours. According to the White House Task Force Report, as of 2010, 65\% of schools allowed for joint use agreements.\textsuperscript{5} The National Policy and Legal Analysis Network to Prevent Childhood Obesity offers a state-by-state analysis of state laws that affect joint use agreements that communities may apply in their efforts to implement these agreements.\textsuperscript{71}

THE ROLE OF HEALTH CARE POLICY AND PEDIATRIC HEALTH CARE PROFESSIONALS

Role of Health Care Policy
Throughout this piece, we have considered a full range of policies that influence healthy weight, focusing on early childhood. We also have included a variety of examples of the roles for health care policy and health care professionals both inside and outside the clinic, including in clinical training (eg, staff education to support breastfeeding), the community environment (eg, partnering in the community to advance environmental changes), and clinical practice (eg, helping patients and families navigate community resources for obesity prevention). These examples are consistent with the recommendations of both a 2008 report by Simpson and colleagues\textsuperscript{75} on the role of health policy in reversing childhood obesity and an article by Dietz and colleagues\textsuperscript{35} regarding opportunities for health plans to engage in promoting environments and policies that support healthy weight.\textsuperscript{72} An additional opportunity for health care sector involvement is in promoting BMI screening in the clinic and community.

BMI Screening
At the individual level, providing parents with information regarding their child’s weight status via BMI may more effectively enable parents and caregivers to make healthy weight-promoting choices for their children. Research reviews have documented that parents whose children are at risk for or are overweight often misjudge their child’s weight status (ie, not perceive that their child is at risk for or is overweight) and that parental involvement increases the effectiveness of obesity prevention.\textsuperscript{73,74} Although BMI monitoring and clinical counseling programs (eg, the High Five for
Kids and LEAP 2 randomized trials) in isolation from other community efforts are not effective in reducing BMI, at population levels, from schools to communities, states, and nationally, current and updated BMI data will more effectively enable those communities to provide adequate services for obesity prevention and treatment of children and families. BMI screening can empower parents and caregivers with clear and actionable information and, when combined with community mobilization and environmental change, can help advance obesity prevention and treatment in their community. The AAP recommends that BMI assessment occur at each well-child visit starting at age 2 years.

Policy and environmental support for BMI screening may occur at a variety of levels. Pediatricians may work to create policies and systems within their clinics or hospitals to more effectively and easily assess and track BMI beginning with 2-year-old patients. Within communities, there are school-based initiatives to track BMI; these initiatives may be more relevant for children in kindergarten and beyond, although communities may work with child care centers to implement BMI screening initiatives for preschoolers. Community-level BMI screening may occur outside out of the school setting and also reach young children and their families; Shape Up Somerville in Somerville, MA, USA, is an example of a community that undertook a multipronged intervention with support from city leadership and saw reductions in children’s BMI z scores. Roughly 30 states have proposed or implemented statewide legislation for BMI assessment and tracking, as did Arkansas in its public schools.

On the national level, the White House Task Force has set a goal for 100% of physicians to assess and track BMI in patients aged 2 years and more by 2012. The AAP has pledged 100% screening among its membership. These efforts are supported by an Affordable Care Act provision at the health care policy level requiring that health plans cover screening for obesity without out-of-pocket costs to patients and families. Health plans additionally may set policies tying BMI assessment to payment. In a state system where there is more than one option for Medicaid managed care plans, the state may increase the proportion of previously unassigned new enrollees to be assigned to those plans that meet or exceed quality performance criteria such as the rate of BMI assessment.

BMI screening and monitoring is an example of overlap between measurement, quality improvement, and policy. A variety of stakeholders desire to improve quality of care and patient outcomes. Clinicians wish to identify children in need of counseling and follow-up, so their practices may begin to monitor BMI. Health plans wish to encourage monitoring, so they may build BMI monitoring into contracts and payment policies. Moving up a level, states want BMI data for monitoring population-level trends, so they may require BMI reporting, tracking, and monitoring and may facilitate entry into BMI registry systems. On the federal level, the Health Resources and Services Administration implemented a new data collection measure for all federally supported community health centers that tracks BMI assessment and counseling for pediatric patients. Policies on BMI screening and monitoring thus may have far-reaching impacts, from improving health care quality to being used as assessment and monitoring tools for policy. The goal of all these efforts is, ultimately, improving information access, counseling, and care for patients and families.

NEXT STEPS: EVALUATING POLICY CHANGE AND PROMOTING HEALTH CARE PROFESSIONAL ADVOCACY
Evaluating and Monitoring Policy Change

A critical component regarding all the environmental and policy change strategies we have outlined is evaluation of both the implementation and effectiveness of those
strategies as well as ongoing monitoring of policies once they are enacted. Once a bill is passed, there still must be ongoing advocacy for its effective implementation as well as monitoring and technical assistance to ensure that the intent of the original policy is fulfilled. In addition, there should be evaluation efforts to assess the implementation and effectiveness of policy. Although it is true that funding for evaluation research may be challenging, there are certain funding mechanisms to support research and evaluation, and state and federal programs may also require evaluation. The 2008 Farm Bill, for example, funded pilot projects such as the Healthy Incentives Pilot regarding use of SNAP cards at farmers' markets and also the evaluation of that project regarding whether fruit and vegetable use increased as a result of that program.\textsuperscript{51} Ongoing monitoring as well as research on implementation, effectiveness, and return on investment are critical in understanding past policy change and setting policies in the future.

**Role of health care professionals as advocates and resources for advocacy**

Health care professionals themselves, including and perhaps especially pediatricians, have a unique and important role in promoting policy change and environments that support healthy weight. Pediatric health care professionals have daily exposure to the childhood obesity epidemic via the patients they treat, and they are trusted leaders in and resources for their communities.\textsuperscript{83,84} Their scientific and clinical knowledge of the epidemic coupled with this trusted community role position health care professionals to participate in community-based advocacy outside their clinics.\textsuperscript{85} Indeed, expert committees and professional organizations have called on health care professionals to collaborate with the public health community and to engage in community-based advocacy, and research has demonstrated that many clinicians are interested in advocacy.\textsuperscript{86–91}

In response to this opportunity, the National Initiative for Children’s Healthcare Quality, in partnership with the AAP, the California Medical Association Foundation, and the Robert Wood Johnson Center to Prevent Childhood Obesity created the Be Our Voice project with support from the Robert Wood Johnson Foundation. The project provides training and follow-up support to primary care providers to participate in community-based public health advocacy for childhood obesity prevention in their communities. Pediatric providers can visit \texttt{www.nichq.org/advocacy} for resources, including an advocacy training curriculum, examples of success stories from 8 Be Our Voice pilot communities, state fact sheets on policy issues affecting childhood obesity (eg, overall prevalence rates compared with other states and disparities by race/ethnicity, insurance status, and income level), and county-level fact sheets that compare healthy lifestyle indicators in one county to those of the entire state and its best-performing counties.

Additional resources are available to help guide providers in taking the first steps in advocacy and community engagement. At the national level, they include listservs from the AAP, Families USA, Voices for America’s Children, and Zero to Three.\textsuperscript{85} At the state level, state chapters of professional associations (eg, American Academy of Family Physicians) often lead advocacy efforts. On PreventObesity.net (\texttt{www.preventobesity.net}), people may connect with additional sources of data, individuals, or organizations in their area of advocacy interest.

**SUMMARY**

The earliest years of a child’s life provide a key opportunity for supporting a developmental trajectory that will encourage healthy weight. Throughout this paper, we have highlighted a variety of policy strategies to promote environments that will support
breastfeeding, foster access to healthy and affordable food and information about food, and promote physical activity. We have included policies on levels from the microinstitutional (eg, hospital/clinic) and community to more macro and public state and federal government levels and noted the importance of evaluating and monitoring the implementation and effectiveness of policies once they are passed. The health care sector and pediatric health care professionals have a unique and important role to play, both in implementing health care system policies (eg, via promoting BMI screening and counseling) and in advocating for policies that support healthy weight on multiple levels in the clinic and wider community.

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