SOLVING THE PROBLEM OF CHILDHOOD OBESITY WITHIN A GENERATION

White House Task Force on Childhood Obesity Report to the President

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Benchmarks of Success

A higher percentage of women conceiving at a normal BMI, and at an appropriate gestational weight gain during pregnancy, based on the Institute of Medicine’s gestational weight guidelines. To measure this, HHS should redirect existing resources to prioritize routine surveillance of weight gain during pregnancy and postpartum weight retention on a nationally representative sample of women and to report the results by pre-pregnancy BMI (including all classes of obesity), age, racial/ethnic group, and socioeconomic status.

Some states also collect maternal and child weight information on birth certificates, and states should be encouraged to work with HHS to ensure that a complete set of data is collected. The 2003 version of the U.S. Standard Certificate of Live Birth includes fields for maternal pre-pregnancy weight, height, weight at delivery, and age at the last measured weight, facilitating improved public health surveillance. By 2007, 24 states adopted this form, representing an estimated 60% of all births. States should strive for 100% completion of fields related to maternal weight and height, as well as share data to provide a full national picture and regional snapshots. HHS should work with the remaining states to encourage adoption of the updated birth certificate form. The President’s FY2011 Budget includes increased resources for all States to have an electronic birth record in 2011.

As an interim step, prenatal counseling rates can be measured as a proxy. The Pregnancy Risk Assessment Monitoring System (PRAMS) is a surveillance project of the CDC and state health departments. PRAMS collects state-specific, population-based data on maternal attitudes and experiences before, during, and shortly after pregnancy, including information on prenatal counseling, cigarette use, alcohol use, breastfeeding, and pre-conception health (including height and weight). PRAMS will be revised to capture prenatal counseling on appropriate weight gain.

B. Breastfeeding

Children who are breastfed are at reduced risk of obesity. Studies have found that the likelihood of obesity is 22% lower among children who were breastfed. The strongest effects were observed among adolescents, meaning that the obesity-reducing benefits of breastfeeding extend many years into a child’s life. Another study determined that the risk of becoming overweight was reduced by 4% for each month of breastfeeding. This effect plateaued after nine months of breastfeeding.

Despite these health benefits, although most (74%) babies start out breastfeeding, within three months, two-thirds (67%) have already received formula or other supplements. By six months of age, only 43% are still breastfeeding at all, and less than one quarter (23%) are breastfed at least 12 months. In addition, there is a disparity between the prevalence of breastfeeding among non-Hispanic black infants and those in other racial or ethnic groups. For instance, a recent CDC study showed a difference of greater than 20 percentage points in 13 states.
The protective effect of breastfeeding likely results from a combination of factors. First, infant formula contains nearly twice as much protein per serving as breast milk. This excess protein may stimulate insulin secretion in an unhealthy way. Second, the biological response to breast milk differs from that of formula. When feeding a baby, the mother’s milk prompts the baby’s liver to release a protein that helps regulate metabolism. Feeding formula instead of breast milk increases the baby’s concentrations of insulin in his or her blood, prolongs insulin response, and, even into childhood, is associated with unfavorable concentrations of leptin, a hormone that inhibits appetite and controls body fatness. Despite the well-known health benefits of breastfeeding and the preference of most pregnant women to breastfeed, numerous barriers make breastfeeding difficult. For first-time mothers, breastfeeding can be challenging, even for those who intend to breastfeed. For those who have less clear intent to breastfeed, cultural, social, or structural challenges can prevent breastfeeding initiation or continuation. For example, immediately after birth, many babies are unnecessarily given formula and separated from their mothers, making it harder to start and practice breastfeeding. Also, hospital staff are often insufficiently trained in breastfeeding support.

The Joint Commission on the Accreditation of Hospitals, the body that accredits hospitals and health care organizations for most State Medicaid and Medicare reimbursement, now expects hospitals to track and improve their rates of exclusive breastfeeding. Hospitals that meet specific criteria for optimal breastfeeding-related maternity care are designated as “Baby Friendly” by Baby-Friendly U.S.A. This non-governmental organization has been named by the U.S. Committee for UNICEF as the designating authority for UNICEF/WHO standards in the United States. Currently only 3% of births in America occur in Baby-Friendly facilities.
While breastfeeding could be far more widespread than it is today, it is not a viable alternative for all mothers and babies. Specific guidance and support options should also be made available for those who cannot breastfeed. Parents and caregivers of babies also may benefit from guidance about when to start feeding them solid foods, since early introduction of solids (prior to six months) increases the risk for childhood obesity.88

**Workplace and Child Care Accommodations**

Research has demonstrated that support is essential for helping mothers establish and continue breastfeeding as they return to work or school and make use of child care services.89 Many women return to work soon after their baby’s birth, yet 75% of employers do not offer accommodations for them to breastfeed or express milk at work.90

Changes are underway, however. Following the lead of states whose laws requiring employers to make accommodations, the recently-enacted Affordable Care Act requires employers to provide a reasonable break time and a place for breastfeeding mothers to express milk for one year after their child’s birth.91 Employers with fewer than 50 employees are not subject to these requirements if compliance would impose an undue hardship. The location cannot be a bathroom, and must be shielded from view and free from intrusion from co-workers and the public. The return on investment of companies that assist breastfeeding employees through appropriate support and accommodations is well-documented. Companies benefit through better employee retention, lower health care costs, and better work attendance.92

Support for breastfeeding in child care settings is important as well. Among women whose infants are cared for outside the home, irrespective of their intent to breastfeed, those who report better support for breastfeeding from early learning settings (such as refrigerated storage for breast milk, a commitment to feed it to the child, or privacy space for on-site breastfeeding) are more likely to breastfeed longer.93

**Support Programs**

In many communities, role models for breastfeeding are rare, and new mothers do not know where to turn for breastfeeding assistance. Volunteer networks of experienced breastfeeding mothers such as the La Leche League provide help for some mothers, but networks like this are not available in many communities. According to the CDC’s annual State Breastfeeding Report Card, there were 34 breastfeeding support groups per 100,000 live births in 2009, which means about one support group for every 3000 new babies. Peer support programs, such as the Peer Counselor program delivered as part of the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), provide counseling skills, training, and support to experienced breastfeeding mothers so they can effectively support new mothers. Recently, federal funds were provided to further expand the availability of peer counseling in local WIC clinics. Prenatal counseling on breastfeeding can also have positive impacts on breastfeeding rates,94 and pre- and postnatal intervention together with peer counseling is most effective.95
Recommendations

**Recommendation 1.3: Hospitals and health care providers should use maternity care practices that empower new mothers to breastfeed, such as the Baby-Friendly hospital standards.** Hospitals and health care providers should routinely provide evidence-based maternity care that empowers parents to make informed infant feeding decisions as active participants in their care, and improves new mothers’ ability to breastfeed successfully. Examples of specific practices and policies include: skin-to-skin contact between the mother and her baby; teaching mothers how to breastfeed; and early and frequent breastfeeding opportunities.

Hospitals, health care providers, and health insurers should also help ensure that new mothers receive proper information and support on breastfeeding when they are released from the hospital.

**Recommendation 1.4: Health care providers and insurance companies should provide information to pregnant women and new mothers on breastfeeding, including the availability of educational classes, and connect pregnant women and new mothers to breastfeeding support programs to help them make an informed infant feeding decision.**

**Recommendation 1.5: Local health departments and community-based organizations, working with health care providers, insurance companies, and others should develop peer support programs that empower pregnant women and mothers to get the help and support they need from other mothers who have breastfed.** Peer support networks should exist in all communities across the country, allowing all new mothers to easily identify and obtain help from trained breastfeeding peer counselors. Community organizations can foster the creation of peer support networks through expansion of programs like the WIC Breastfeeding Peer Counseling program. They can work with local breastfeeding coalitions to ensure existence of other peer support networks, such as La Leche League groups or Nursing Mothers Councils. They can also foster the creation of mother-to-mother support groups in community health centers and advertise these groups, particularly as part of the hospital discharge process.

Early Head Start (EHS) programs that enroll pregnant women, including pregnant teenagers, can also support community breastfeeding networks. EHS can provide home visits and reach out to pregnant and breastfeeding mothers to encourage and support breastfeeding, including by providing professional and peer opportunities to disseminate information and provide on-going support. Funding for evidence-based home visitation programs in the recently-enacted Affordable Care Act will complement this program.

Private companies, including those that market baby products, can also help support and promote these types of community supports for mothers.

**Recommendation 1.6: Early childhood settings should support breastfeeding.** Child care centers and providers, health care providers, and government agencies should provide accurate information about the storage and handling of breast milk. They should also make sure child care employees and providers know how to store, handle, and feed breast milk, and understand the importance of breastfeeding.
**Benchmarks of Success**

**An increase in breastfeeding rates.** Several government sources provide statistics on breastfeeding rates. The most comprehensive source of information is the National Immunization Survey, which provides annual national, state, and selected urban-area estimates of breastfeeding initiation, duration, and exclusivity. In addition to questions on breastfeeding, the survey asks about the introduction of infant formula and other supplementary foods. As noted above, according to the survey, currently 30% of babies age nine months or younger are breastfed. This should increase by 5% every two years, so that by 2015, half of babies are breastfed for at least nine months.

**C. Chemical Exposures**

In addition to fetal “over-nutrition” or “under-nutrition,” it is possible that developmental exposure to endocrine disrupting chemicals (EDCs) or other chemicals plays a role in the development of diabetes and childhood obesity. Some scientists have coined the term “obesogens” for chemicals that they believe may promote weight gain and obesity. Such chemicals may promote obesity by increasing the number of fat cells, changing the amount of calories burned at rest, altering energy balance, and altering the body’s mechanisms for appetite and satiety. Fetal and infant exposure to such chemicals may result in more weight gain per food consumed and also possibly less weight loss per amount of energy expended. The health effects of these chemicals during fetal and infant development may persist throughout life, long after the exposures occur.97

Research on such chemicals suggests that the origins of obesity may lie not only in well-established risk factors such as diet and exercise, but also in the interplay between genes and the fetal and early postnatal environment. The National Institute of Environmental Health Sciences, the Environmental Protection Agency (EPA), and other research organizations have been working to understand the developmental origins of obesity and other diseases. Their activities have helped reveal the links between environmental chemicals and obesity and diabetes, providing a sufficient base of evidence to warrant future research efforts in this area.

This issue could also be investigated further by the President’s Task Force on Environmental Health Risks and Safety Risks to Children, led by HHS and EPA. An increased understanding of chemical toxicity also adds strength to the existing recommendations for parents to avoid microwaving baby bottles or plastic containers that are not explicitly stated by the manufacturer as safe for use in microwaving.98 Government should work closely with industries to translate this emerging science into programs that supports product reformulation (for example, of plastic containers) as appropriate.

**Recommendations**

**Recommendation 1.7: Federal and State agencies conducting health research should prioritize research into the effects of possibly obesogenic chemicals.** As the research becomes clearer, reducing harmful exposures may require outreach to communities and medical providers, and could also entail regulatory action.