



CARE FOR KIDS



Early & Periodic Screening, Diagnosis & Treatment

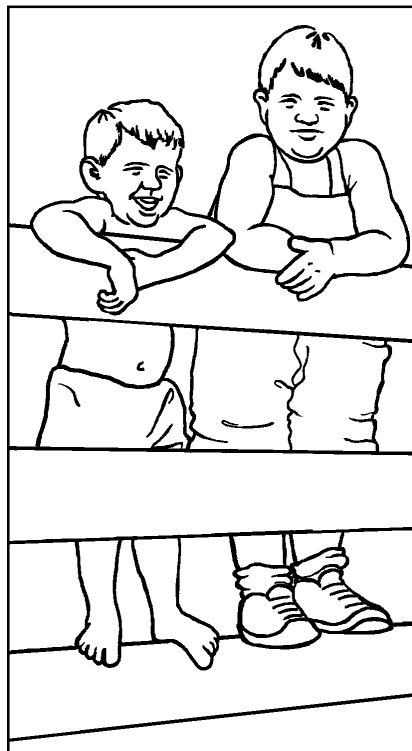
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Childhood Obesity

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The rate of obesity in children, defined as having a weight greater than expected for height, is increasing at an alarming rate. Obesity is caused by ingesting more calories than are expended. According to the latest studies by the National Health and Nutrition Survey (NHANES III, online at w.cdc.gov/nchs/nhanes.htm), 22% of children qualify as obese, up from 15% ten years ago.

In Iowa, Pediatric Nutrition Surveillance System (PedNSS) data collected at WIC (see insert page 2), and shared with the federal Centers for Disease Control and Prevention, confirm that the prevalence of obesity in Iowa WIC children increased from 7.6 percent in 1985 to 10.1 percent in 1999. The measurement frequently used in the assessment of obesity is Body Mass Index (BMI). Standard tables are avail-



able that display BMI percentiles per age (see <http://www.cdc.gov/nccdphp/dnpa/bmi/calc-bmi.htm>).

Obesity in children is associated with specific complications:

- Poor self-esteem, which can exacerbate the obesity
- Depressive disorders, found in about 10% of obese children
- Sleep apnea secondary to upper airway obstruction. Sleeping habits should be detailed in obese children. A child with a history of loud snoring or pauses in breathing while sleeping should undergo a formal sleep study.
- Steatohepatitis
- Hypertension
- Atherosclerosis
- Type II diabetes mellitus. This disorder, increasing at an alarming rate in adolescents, correlates strongly with obesity. Obese children should be asked about such symptoms as excessive thirst and frequent urination.

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Studies have demonstrated that if both of a child's parents are obese, two-thirds of their offspring will be obese. If only one parent is obese, approximately half of their children will be obese. If neither parent is obese, their children have about a 9% risk of obesity. Multiple genes have been linked to obesity, including the ob, db, fat, tub, and agouti genes. Leptin is the product of the ob gene, and is produced in adipose tissue. Leptin receptors are present in the hypothalamus and help to regulate food intake.

Many studies are underway to look at the mechanisms and causes of obesity in children. Here at the University of Iowa, genetic studies are investigating new gene candidates for childhood obesity. The University of Iowa is also involved in studies looking at insulin resistance and correlations with different genetic mutations in children with obesity, including the glucocorticoid receptor gene. The glucocorticoid receptor is present in all cells of the body. A mutation of this receptor has been associated with increased sensitivity to glucocorticoids as well as insulin resistance.

Treatment

The options available for the treatment of obesity in children are limited. In adults with obesity, medications are available to help suppress appetite or interfere with the absorption of fats. The use of these medications has not been studied in pediatric populations. In obese children, the mainstays of therapy include diet and exer-

cise, both important in order for weight management to be successful. In growing children the goal for weight management is often weight maintenance, or staying at a current weight while the child grows taller, thus achieving a more appropriate BMI. Caloric goals can best be estimated by working with a nutritionist, who can counsel the family about such goals, how to estimate portion sizes, and how to make appropriate food choices.

Exercise should consist of 30 minutes of aerobic activity (brisk walking, swimming, or bike riding) every day.

Behavior therapies are also helpful in the treatment of obesity. The best technique is for the child to self-monitor, keeping a diary of exercise and foods eaten. If the parent of an older child tries to regulate the diet, the plan will often fail as the child finds other ways to obtain food. Behavioral changes that are important include sitting down at a table to eat, rather than eating in front of the television, as studies have shown that children who watch TV are likely to ingest more calories. Meals should be eaten on a regular schedule, so that a child learns appropriate timing for meals and minimizes snacks between meals. Building self-esteem and encouraging the child to approach weight man-

agement with a positive attitude will also improve success.

Obesity is a significant concern in our society today. Obese children tend to become obese adults; complications from obesity include cardiovascular disease, diabetes, and hypertension. Good preventative care will involve identifying obesity, identifying any complications, and initiating treatment.



Resources

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"The Prevention of Child and Adolescent Obesity in Iowa," a position paper by Iowa WIC and Susan Pohl of the Iowa Bureau of Nutrition, is available at w.idph.state.ia.us/fch/n-wic.htm, or call 1-800-532-1579.

Breastfeeding and the Primary Care Provider

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Human milk is considered to be the ideal source of nutrition for term and near-term infants, and preemies and “micro” preemies also benefit from fortified human milk. But today, regardless of the many advantages that breastfeeding provides to both mothers and infants, more than one-third of all Iowa mothers choose not to initiate breastfeeding.

At the beginning of the 20th century, nearly all hospitalized mothers breastfed their infants. This number gradually declined as mothers began using cow’s milk-based formulas, and the decline accelerated with the introduction of commercially prepared human milk substitutes in the 1920s. By

the late 1960s, fewer than 25% of women in the US initiated breastfeeding during the hospital stay. In response to this dramatic decline, public health officials, health professionals, and others concerned about the health of mothers and infants began implementing strategies to promote breastfeeding in the United States. The downward trend was reversed and breastfeeding rates rose over the next decade before dipping again in the mid-1980s.

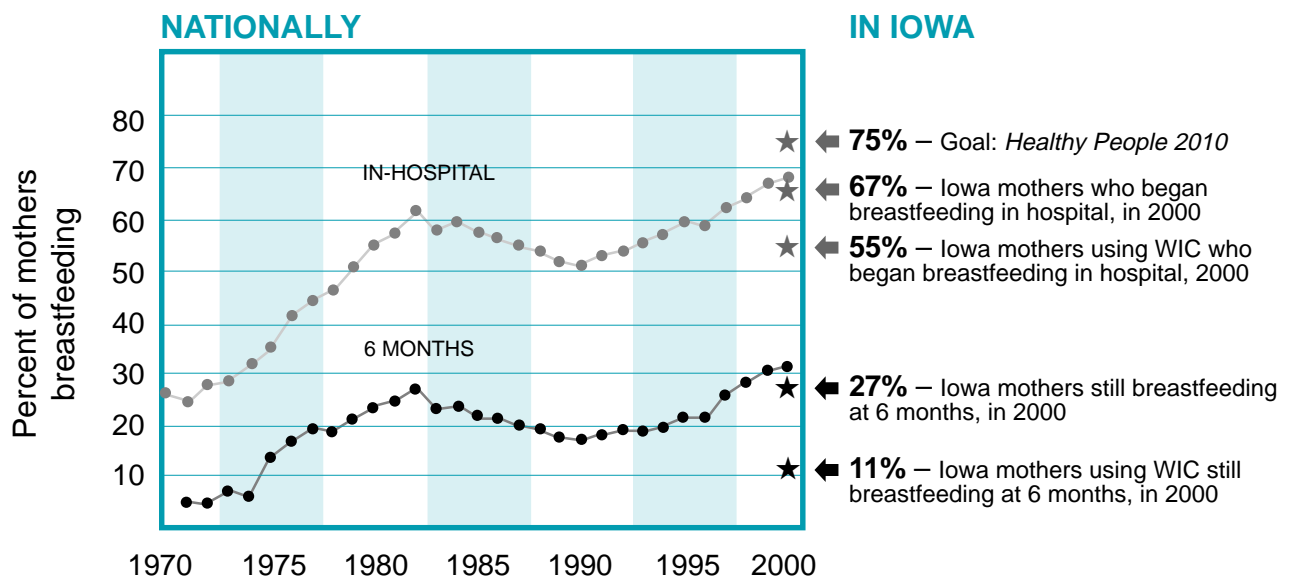
Low levels of initiation, duration

In 1989 the United States Public Health Service released *Healthy People 2000*, whose goals included increasing the rate of

breastfeeding initiation to 75%, with special emphasis on high-risk groups among whom breastfeeding rates were as low as 25%. *Healthy People 2000* also recommended increasing the length of time that mothers breastfeed. These goals were reaffirmed in *Healthy People 2010*; however, the most recent data from Iowa indicate that we have not met either goal. In 2000, only 67.2% of all mothers in Iowa began breastfeeding in the hospital, and only 26.7 were still breastfeeding 6 months later. Among WIC mothers, only 55.5% began breastfeeding in the hospital, and only 11.2% were still breastfeeding at 6 months.

Breastfeeding Trends: 1970 – 2000

Adapted from “Mother’s Survey,” Ross Products Division, Abbott Laboratories.



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What we can do

As health care professionals, we need to encourage mothers to breastfeed, and to do so for a longer time. Many health care providers have their first encounter with mothers and newborns during their hospital stay. However, most studies indicate that 65-95% of women have decided how they will feed their infants prior to the birth of the baby; many, in fact, prior to becoming pregnant. Clearly, we need to think of breastfeeding as a life cycle event, rather than as something that is decided when the baby is born.

The life cycle model focuses on educating girls from childhood on, as well as on significant members of their social network. This means it is important to educate even pre-adolescent girls and boys, in an age-appropriate manner, about the benefits of breastfeeding. As an adult, a woman will rely on a circle of relatives and friends for support and advice; these individuals also need to be identified and informed about the benefits of breastfeeding.

It is important to realize that most individuals older than 25 grew up in an era when breastfeeding was very uncommon. They may remember when it was frowned upon or even legally banned in both public places and private businesses. As a result, they may have very little personal experience with or exposure to breastfeeding. Educating them on the benefits of breastfeeding may require some effort, but is impor-

tant if they are to be supportive of a mother's desire to breastfeed.

Health care providers also need to provide new mothers who want to breastfeed with fundamental information to help them succeed in this most personal of endeavors. A new mother will often need guidance about both her own body (how the milk "lets down," nipple soreness, engorgement) and about her child (how to position her baby and help it suck; how to schedule feedings; how to know if the baby is getting enough to eat).

Duration of breastfeeding

Healthy People 2010 recommends that breastfeeding continue for five to six months. The American Academy of Pediatrics recommends that women exclusively breastfeed for the first 6 months, and continue at least some breastfeeding for twelve months or as long as the mother desires. So it is discouraging that most women in the United States breastfeed for only six to eight weeks.

One way to assist mothers to breastfeed longer is to inform them about ways to accomplish this. For example, many places of employment offer resources like lactation rooms so that mothers can breastfeed in the workplace. Other working mothers may wish to store their milk so that it can be bottle-fed to their children by day care providers; lactation rooms can also make this easier. Health care providers need to be informed about breast pumps, breast milk, storage sys-

tems, and storage requirements, and to talk with mothers about them.

Health care providers can also act as advocates. They can encourage third-party payers to include breast pumps as a covered item. They can talk with employers and business owners about providing clean, safe lactation facilities at places of employment, shopping malls, and recreational settings. Many resources exist to help health care providers promote breastfeeding:

- Iowa Department of Public Health
- Iowa Lactation Task Force
- Iowa Chapter of the American Academy of Pediatrics
- Lactation consultants at local hospitals
- Lactation advisors such as La Leche League

Resources:

Healthy People 2010: National Health Promotion and Disease Prevention Objectives.

(US Dept. Health and Human Services), <http://odphp.osophp.dhhs.gov/pubs/hp2000/>.

"American Academy of Pediatrics Work Group on Breastfeeding: Breastfeeding and the Use of Human Milk." *Pediatrics* 1997; 100:1035-9.

"American Academy of Pediatrics Promotion of Breastfeeding: Policy Statement Based on Task Force Report." *Pediatrics* 1982; 69:654-661.

DISASTER PREPAREDNESS

and People with Disabilities or Special Health Care Needs

Having a plan to help you deal with a disaster — whether it is an earthquake, flood, tornado, or other catastrophe — is especially important if your family includes someone with a disability. To be prepared:

- 1. Create a disaster plan.**
- 2. Set up a support network.**
- 3. Educate members of your network about your disaster plan.**

1 YOUR DISASTER PLAN

Make a plan, and keep copies near to hand at home, in your billfold, at school or work, in your car. Give a copy to each person in your support network. In addition to general preparedness issues, a plan for someone with disabilities or special health care needs should include:

- **Contact information for you and for members of your support network.** For each, include local information, and also a contact person at least 100 miles from your community, in case events affect a large area.
- **Health care information:**
 - Special health conditions and care routines
 - Contact information for key health care providers
 - Information on necessary technology (*dialysis, portable oxygen, etc.*)
 - Medication information (*prescriptions, doses, timing, contact information for prescribing physicians*)
 - Information on alternate sources of life-sustaining care (*such as dialysis*)
- **Information about special assistance you may require in a disaster:**
 - Personal care (*bathing, dressing, eating*)
 - Transportation
 - Help with clean up of debris
 - Alternate sources of basic services: water, heat, electricity (*and whether electrical supply affects essential equipment — oxygen, dialysis, etc.*)
- **The location of your disaster kit**
 - For general kit contents, see FEMA or Red Cross resources below
 - Extra devices: Orthotics; glasses; contact lenses, solution; hearing aide, batteries
 - Prescription medications (*7-day supply*)
 - Mobility aids (*cane, walker, wheelchair batteries, repair supplies*); other essential equipment
 - If you have a service animal: food, water dish, leash/harness, collar, ID tags
- **Your evacuation plan** - Have a plan for getting out of any location in which you often find yourself, such as home, office, gym, school, etc.
 - If you need help to leave a location, set up in advance a way to get that help.
 - Plan several evacuation routes; some may be blocked.
 - If you rely on elevators or ramps, know how you will leave the building if these are damaged.
 - Be sure your network knows how to operate your wheelchair if you use one.

2 SET UP A SUPPORT NETWORK

It is important to ask people — family, friends, teachers, coworkers — ahead of time to be part of your support network. Include at least two (*three is better*) people from each location in which you often find yourself.

3 EDUCATE MEMBERS OF YOUR NETWORK ABOUT YOUR DISASTER PLAN

Give people in your network a copy of your disaster plan, and discuss it. Update the plan as needed, and share updates with your network. Many communities have disaster management agencies that keep a registry to help them assist people with disabilities or special needs during a disaster. If your city does this, register with this agency.

FOR MORE DETAILED INFORMATION

Disaster Preparedness for People with Disabilities

w.fema.gov/library/disprepf.htm

Disaster Preparedness for People with Disabilities

w.redcross.org/services/disaster/beprepared/disability.html

Iowa Emergency Management Division

w.state.ia.us/emergencymanagement/



Nutrition and WIC

Helping to Build a Healthier Iowa 1-800-532-1579

Why refer families to WIC?

Because WIC provides:

- Nutrition counseling and education
- Breastfeeding promotion and support
- Checks to purchase nutritious foods or formulas for special needs at WIC-authorized grocery stores or pharmacies
- Immunization screening and referrals
- Health and social service referrals

WIC's registered nurses and licensed dietitians meet with each participant or parent/caretaker to:

- Assess diet and health history to identify nutritional needs
- Refer concerns to primary care provider if appropriate
- Provide health and nutrition counseling
- Determine appropriate foods and explain how and where to buy them

WIC promotes breastfeeding

- Iowa's WIC Program is a leader in breastfeeding promotion and support activities
- Breastfeeding initiation rates for Iowa WIC mothers have increased since 1990, as have breastfeeding initiation rates for all Iowa mothers

Who is eligible for WIC?

WIC serves children under 5 years old and women who are pregnant, breastfeeding, or have been pregnant in the last 6 months, and who:

- Are residents of Iowa
- Meet WIC income guidelines: 185% of the federal poverty level, based on household size. All children eligible for Medicaid meet WIC income guidelines.
- Have a medical or nutritional need, as determined at the WIC certification appointment. Examples of qualifying needs:
 - Medical conditions that affect food intake or nutrition status
 - Abnormal height or weight
 - Low intake of essential nutrients
 - Inappropriate feeding practices
 - Conditions that predispose to inadequate nutrition patterns, such as lead poisoning, teen pregnancy, or a primary caregiver with limited ability to make appropriate feeding decisions and/or prepare food

To help families find, and use, WIC services:

- Display posters and brochures in your office
- Include WIC information in education or enrollment packets
- Talk with families about the benefits of WIC. Many families qualify who aren't on Medicaid; a family of four can make over \$30,000 and still be eligible
- Provide families with written height, weight, and hemoglobin information to bring to WIC. This shortens the time they need to spend at WIC certification appointments

WIC stands for the Special Supplemental Nutrition Program for **W**omen, **I**nfants and **C**hildren.

**Call 1-800-532-1579 to find the local WIC agency nearest you.
WIC services are provided in every county in Iowa.**



Coming Your Way:

Smallpox and Vaccination in the 21st Century

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People in the Middle Ages identified three pox illnesses:

- “Small” pox was vaccinia, the same smallpox that we know today.
- “Large” pox is thought to have been syphilis, a much more virulent disease in the past.
- “Chicken” pox, a name derived from middle French *pois chiche* (chickpeas), was our varicella.

Smallpox, a life-threatening illness with a fatality rate of 10-20%, continued through the early 20th century. Then a massive, worldwide effort was undertaken, and in the 1960-70s, this disease was eradicated. But the vaccination of healthy children was not without risk. Every year from seven to nine small children in the US died from complications directly related to vaccination. Children with immunosuppressive disease who were vaccinated in error would almost invariably die. For these reasons, routine childhood vaccinia vaccination was discontinued in the 1970s.

The eradication campaign was successful because there was a potent vaccine. Today, it is a lyophilized (rapidly frozen and then dehydrated under high vacuum conditions) preparation of live vaccinia virus. After eradication of smallpox, vaccine production ended except for a limited use

with military personnel. In the year 2002, all people in the United States who have never received vaccinia vaccine are susceptible to smallpox. Older individuals who were vaccinated during childhood (before 1970) may have some residual immune protection.

With the advent of bioterrorism, such as that using anthrax this fall, concerns have increased about the intentional release of smallpox virus in the general population. As a direct result, the federal government has expressed a renewed interest in smallpox vaccination. Pharmaceutical companies are producing more of the traditional vaccine. In addition, they are also developing new smallpox vaccine products.

The traditional vaccine is produced using calf lymph. One of the new vaccine products is being prepared in human cell cultures, in a manner similar to that used in the preparation of rubella vaccine. Because it is produced in human cell cultures, it will probably cause fewer reactions, and thus fewer deaths. Phase 1 vaccine trials are being designed to evaluate the safety and effectiveness of these newer candidate vaccines.

If these clinical trials are successful, the pediatric community will be asked again to consider universal vaccination for smallpox. One strategy may include immu-

nization only of 4-6 year old children, to avoid vaccination of younger children with as yet undiagnosed immunosuppressive conditions. In addition to vaccination, antiviral medications are also being developed to treat vaccinia virus infection.

How Do I Bill for Nutrition Services for Children on Medicaid?

Screening centers, physicians, local education agencies, and Early Access (infant and toddler) programs can bill for nutrition counseling that is beyond the scope of normal WIC services. This includes services for children too old for WIC, and for younger children with medical diagnoses that require medical nutrition therapy. If your agency does not employ a licensed dietitian, you can contract for these services.

All WIC agencies employ at least one licensed dietitian, and some of these agencies are willing to contract for the provision of nutrition counseling. Refer to your manual for referral and billing information. Call 1-800-532-1579 to find a WIC agency near you.

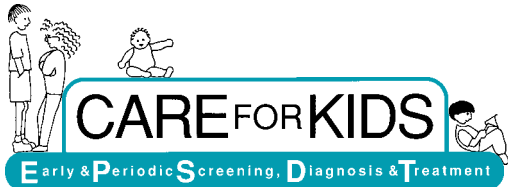
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If you have questions about **billing**
related to EPSDT Care for Kids services, please call
Provider Services: **1-800-338-7909**

If you have questions about **clinical issues**
and EPSDT Care for Kids services, please call
Edward Schor, MD: **1-800-383-3826**

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