

## Nutrition Risk Factors for Children

Nutrition continues to be important as an infant becomes a child. Nutrition is important for normal growth and development. While a child's diet is more varied than an infant's diet, the child is still susceptible to nutritional deficiencies. Children are also in the process of developing food habits that will remain with them for life.

Most of the nutrition risk factors that may be assigned to children are the same as those that may be applied to infants. There are only a few that are unique to children or that have special definitions that apply only to children. You should be aware that priority and risk for many of the risk factors are different for children than they are for infants. Look at Table 5 at the end of this section to see all of the nutrition risk factors that apply to children.

**NRF# 78 Low Birth Weight** - Birth weight of 5 2 pounds (2500 grams) or less.

Low birth weight (LBW) is a predictor of a child's health and development until the age of 2 years (24 months). A child who was born low birth weight often needs extra nutrients to sustain rapid growth and development. At about the age of two years, many low birth weight children catch up to their normal weight peers and low birth weight becomes less of a predictor for health. NRF# 78 is an objective risk factor that is assigned by the ASPENS system after an infant's birth weight is entered into the computer. It is only assigned as a risk factor for a child up to the age of 24 months. It can not be assigned at 24 months of age or older.

**NRF # 25 Inadequate or Potentially Inadequate Growth (low risk)**

**NRF# 26 Inadequate or Potentially Inadequate Growth (moderate risk)**

**NRF# 27 Inadequate or Potentially Inadequate Growth (high risk)**

These three NRFs related to inadequate weight gain are listed here because they apply to children as well as to infants. The definitions are nearly the same for children as they were for infants. The interval between weight measurements for a child must always be at least 3 months and not more than 7 months. The minimum expected weight gain for a child is one pound every 6 months or 2 pound every 3 months. Use the tables in you mini-manual to determine minimal expected weight gains when the measurement intervals are not exactly 3 months or 6 months.

**Medical Conditions - Moderate Risk**

**Medical Conditions - High Risk**

- |                                  |                                    |
|----------------------------------|------------------------------------|
| HA - Nutrient Deficiency Disease | HP - Major Surgery or Burns        |
| HB - Gastro-Intestinal Disease   | HQ - Juvenile Rheumatoid Arthritis |
| HC - Diabetes Mellitus           | HR - Lupus Erythematosus           |
| HD - Thyroid Disorder            | HS - Cardiorespiratory Disease     |
| HE - Hypertension                | HT - Heart Disease                 |
| HF - Renal Disease               | HU - Cystic Fibrosis               |
| HG - Cancer                      | HV - Asthma                        |
| HH - Nervous System Disorder     | HW - Clinical Depression           |
| HI - Genetic/Congenital Disorder | HX - Developmental Delay           |
| HJ - Inborn Error of Metabolism  | HY - Dental Problem                |
| HK - Infectious Disease          | HZ - Failure to Thrive             |
| HL - Food Allergy                | JA - Small for Gestational Age     |
| HM - Celiac Disease              | (Only under 24 months of age)      |
| HN - Lactose Intolerance         | JC - Fetal Alcohol Syndrome        |
| HO - Eating Disorder             |                                    |

Remember this long list of medical conditions for infants? Most of the same conditions apply as risk factors for children. There are two differences. NRF# JD Pyloric Stenosis and NRF# JB have been removed from the list. They are risk factors for infants only. NRF# JA Small for Gestational Age is on the list, but it may only be assigned to children less than 2 years of age. See the list of Medical Conditions in the mini-manual for more details.

**NRF# 81 Inadequate Diet**

This risk factor is listed here just to remind you that the diets of children are evaluated using 24 hour Diet Recalls or Food Frequencies. This is the same as is done for women, but is different than what is done to evaluate the diets of infants.

**NRF# 82 Inappropriate Feeding Practices**

- \$ Routine consumption or feeding of:
  - ▶ 12 or more ounces of any juice per day, or
  - ▶ Nonfat or reduced fat milks as primary milk source between 12 and 24 months of age.
- \$ Child not feeding themselves or not using a spoon or cup after 12 months of age.
- \$ Feeding a child primarily pureed or liquid food (unless medically necessary).

Routine consumption of 12 or more ounces of fruit juice per day by young children may displace other more nutritious foods. Excessive juice intake has been linked with poor growth, overweight, and gastrointestinal disturbances.

Non-fat and reduced-fat milks are not recommended for children under two years of age. Children under two years of age who are consuming non-fat and reduced-fat milks gain weight at a slower rate and lose body fat. Use of reduced-fat milks may result in essential fatty acid deficiency with a negative effect on mental development.

**Note:** The consumption of 12 ounces of juice per day or use of non-fat or reduced-fat milk must be on a **routine** basis for this risk factor to be assigned.

A child who does not feed themselves with a spoon or cup, or a child who is consuming only liquid or pureed foods is not learning age-appropriate skills for eating. This can have important consequences later in childhood. These conditions can also result in nutritionally inadequate diets and need to be evaluated.

**Note:** Related to this NRF, remember that NRF# 88 Inappropriate Use of Nursing Bottle should be assigned to a child over 14 months of age who is still using a bottle for feeding or drinking.

### **NRF# 88 Inappropriate Use of Nursing Bottles**

This NRF was presented before with the NRFs for infants. It is being presented here again because it applies also to children. Review the conditions that are included in this NRF. Note especially that any child over 14 months of age who is still using a bottle for feeding or drinking should be assigned this NRF.

**Table 5. Risk Factors That Apply to Children**

		Priority	O/S	Risk
45/46	Anemia/Severe Anemia	3/3	O	L/H
AB	Elevated Blood Lead	3	O	M
91	Excessive Intake of Dietary Supplements, Vitamins, or Minerals	5	S	L
86	Highly Restrictive Diets	5	S	M
70	Homelessness	5	O	L
71	Migrancy	5	O	L
93	Woman or Primary Caregiver with Limited Ability to Make Feeding Decisions	5	S	L
94	Foster Care	5	S	L
15/16	Underweight	3	O	H/M
17/19	Overweight	3	O	M/H
14/18	Short Stature	3	O	L
25/26/27	Inadequate or Potentially Inadequate Growth	3	S	L/M/H
78	Low Birth Weight	3	O	L
	Medical Conditions HR/MR	3	S	H/M
82	Inappropriate Feeding Practices	5	S	L
88	Inappropriate Use of Nursing Bottles	5	S	L
64	Pica	5	S	L
81	Inadequate Diet	5	O	L
69	Regression	5	S	L
95/96	Transfer		S	L

## The Remaining Nutrition Risk Factors For All Categories of WIC Participants

There are just three remaining risk factors which have not been discussed above. This module started with a discussion of nutrition risk factors which applied to all categories of WIC participants. Here we will finish the discussion of nutrition risk factors with three risk factors that are applicable to all classes of WIC participants (women, infants, and children).

**NRF# 69 Possibility of Regression in Nutritional Status** - If the WIC professional (RD/RN), after determining the participant to be no longer at nutritional risk, and after consideration of the preventive aspects of the WIC Program, has reason to believe the participant may revert to a poor nutritional status, then they may be recertified under this code. Written documentation on why this code is being used must be present in the participant's chart. Regression may not be used at an initial certification. This risk factor is to be used with discretion and primarily for only one certification period, except in rare cases where the WIC professional determines a participant is still very fragile or high risk.

This risk factor is used when WIC staff have done a outstanding job and helped a WIC participant to resolve all of their nutrition risk factors. If there is a significant concern that the WIC participant may again develop nutrition risk factors without the support of the WIC Program, this risk factor may be used to recertify the participant on the WIC Program (remember you must have a NRF in order to be a WIC participant).

This NRF may not be used to certify a participant for the first time. It can **ONLY** be used to recertify a participant. The participant must have originally been certified on the WIC Program with other NRFs that have now been resolved.

**Note:** Only the WIC dietitian or nurse may assign this risk factor. Written justification by the WIC RD/RN must be given in the participant's chart as to why this NRF was assigned.

**Note:** This risk factor is to be used with discretion and primarily for only one certification period, except in rare cases where the WIC professional determines a participant is still very fragile or high risk.

**NRF# 95 Transfer** - Known Priority

**NRF# 96 Transfer** - Unknown Priority

These two nutrition risk factors are for use with transfer of participants from out of state. WIC staff should remember that once a person is certified on the WIC Program they remain on the Program until they reach their termination date even if they move between WIC agencies (in-state or out-of-state). Out-of-state transfers are usually initiated when a WIC participant comes into a WIC clinic with a Verification of Certification (VOC) card. If the VOC card gives the priority of the participant it is entered into the ASPENS system along with NRF# 95 Known Priority. If the VOC does not list the participants priority then NRF# 96 Unknown Priority is entered since the priority is not known. When performing a transfer from out-of-state the WIC staff member will also need to enter the certification date and termination date into the ASPENS system as well as the appropriate NRF.

In-state transfers are handled through the ASPENS system and no new NRFs need to be added. NRFs #95 & 96 are not assigned because with in-state transfers the complete ASPENS record for the participant is transferred to the new clinic listing previously assigned NRFs and priority.

**Practice!**

**L**

Below are two examples of children being certified/recertified on the WIC Program. List the NRFs that apply to each.

1. Katie Brown, 16 month old girl (certification visit)

Current height = 30 inches

Current weight = 25 pounds 6 ounces

Hematocrit = 34% (5200 feet)

Eats table foods, can feed self with spoon and cup

Gets 28 ounces of juice per day in bottles

Mom reuses bottle without washing them

Mom reports that she took infant to an allergy specialist (physician) who diagnosed Katie with allergies to peanuts, milk, and soy

- Diet Recall:
- 0 servings dairy
  - 2 servings meat/meat alternative
  - 6 servings bread/cereal
  - 8 servings fruits/vegetables
  - 0 vitamin A
  - 7 vitamin C
  - 4 ounces cola beverage per day in a cup

Answer (List NRFs):

Priority Risk


What is her priority?\_\_\_\_\_ What is her risk?\_\_\_\_\_

The Remaining Risk Factors for All Categories of WIC Participants

Katie returned to the WIC clinic at 19 months 0 weeks for a follow-up appointment. At that time her weight was 25 pounds 10 ounces.

\$ Would any of the NRFs for inadequate weight gain apply at this time (identify the applicable NRF)?

\$ What is the minimal acceptable weight gain for this time period for a child?

2. John Lewis, 3 year 2 month old boy (recertification visit)

Current weight = 24 pounds 12 ounces

Current height = 35: inches

Weight at 2 years 9 months 0 weeks = 24 pounds 11 ounces

Hematocrit = 33% (5200 feet)

Diet recall: 3 servings dairy

2 servings meat/meat alternatives

3 servings bread/cereal

4 servings fruits/vegetables

2 vitamin A

1 vitamin C

Was born low birth weight

Child's one-a-day multivitamin/mineral taken daily

Mother on WIC

Being raised in a foster home for the last 18 months

Answer (List NRFs):

	Priority	Risk

What is his priority? \_\_\_\_\_ What is his risk? \_\_\_\_\_

(See back of module for answers to Practice L)

## **Summary and Conclusion**

Believe it or not you have reached the end of the NRF module. Congratulations! It is not an easy or a short module, but it is a very important one. It is imperative that you risk WIC participants correctly and completely. The goal is not to just find one risk factor to get a person on the Program. The goal is to assign all of the appropriate risk factors that apply to the participant (up to eight). This information is used by several government agencies to monitor the health of women, infants and children in the nation, it is used to determine who is to be served by the WIC Program (especially in times of low funding), it is used by the State and Federal government in planning and funding the WIC Program, and it is also used to determine referral and education for participants. As a WIC staff person you are helping to compile the statistics that are used for national and state decisions about health care. It is a very important part of your job!