## Health Outcome-Based WIC Nutrition Assessment

The health outcome-based WIC nutrition assessment is offered as an example of a positive approach to assessment where a desirable health outcome serves as a focal point to collect relevant information. Using a positive approach to assessment in which the participant, parent, or guardian gains a greater appreciation of how to attain good health and recognizes her own need(s) and/or an infant's or child's needs for health improvement can lead to more effective WIC interventions. It also provides an organized, systematic way to perform an assessment and is consistent with two national public health initiatives to improve the health and well-being of Americans:

- Healthy People 2010 Health Objectives, a comprehensive health promotion and disease prevention agenda; ${ }^{1}$ and
- Bright Futures, a set of health supervision guidelines to "promote and improve the health, education, and well-being of infants, children, adolescents, families, and communities." ${ }^{2}$

The health outcome approach is adapted from the Healthy People 2010 (HP 2010) systematic approach to improving health. The HP 2010 approach consists of goals, objectives, health determinants, and health status. For the purpose of WIC nutrition assessment, the goal is a desired health outcome for each participant category. The health outcome is dependent upon health determinants - a set of factors influenced by individual behaviors, past and current health conditions, and the family and social environment - that increase the likelihood of reaching the desired health outcome. The health determinants reflect both HP 2010 objectives and Bright Futures health outcomes and are organized and titled accordingly.

Consider the health goal for a pregnant woman.

Desired health outcome: Delivers a healthy, full-term infant while maintaining optimal health status.
${ }^{1}$ U.S. Department of Health and Human Services, Healthy People 2010: Understanding and Improving Health. $2^{\text {nd }}$ ed. Washington, DC: U.S. Government Printing Office, November 2000.
${ }^{2}$ Green, M and Palfrey J, editors. Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents, $2^{\text {nd }}$ edition, revised, page vi, 2002.

This desired health outcome is more likely to occur when the woman:

- Receives ongoing preventive health care including prenatal care;
- Achieves a recommended maternal weight gain;
- Remains free from nutrition or food-related illness, complications, or injury;
- Avoids alcohol, tobacco and illegal drugs;
- Consumes a variety of foods to meet energy and nutrient requirements; and
- Makes an informed decision to breastfeed her infant.

Each health determinant can be explored with the applicant by collecting and evaluating relevant information. For example, weight, height, pre-pregnancy weight, and week of gestation would be collected and evaluated to assess if the pregnant woman is achieving a recommended maternal weight gain.

During the exploration of each health determinant, risk factors may be identified and further probed to identify potential causes, such as knowledge, skills, attitudes and beliefs, cultural practices, family and social environment resources, and access to food and health care services.

Using health outcomes in WIC nutrition assessment is one systematic approach that can be adapted to State and local needs and may lead to a positive outcome for the participant. Health outcome-based WIC nutrition assessment allows staff to: ${ }^{3}$

- Emphasize strengths and healthy practices of the participant and family;
- Highlight accomplishments and/or developmental progress; and
- Reinforce the increasing competence of caregivers.

This positive context may help the participant, parent, or guardian develop a greater understanding of the purpose of the WIC nutrition assessment, recognize her role in achieving the desired health outcome, and empower her to decide how (or whether) to alter current behaviors.

An outline for a health outcome-based WIC nutrition assessment has been developed for each participant category. Each outline lists:

- The desired health outcome (goal);
- A set of health determinants (in the boxes) that contribute to achieving the outcome;
- Information to be collected for each health determinant;
- The WIC nutrition risk criteria (as described in FNS Policy Memorandum 98-9 ${ }^{4}$ ) associated with each health determinant; and
- Information not associated with WIC nutrition risk criteria, but considered necessary for individualizing nutrition services to meet the needs of each participant.

Note: For consistency, health determinants are listed in a similar order for all participant categories. This order does not imply any priority or importance. Each State agency establishes policies and procedures about nutrition assessment tasks, including how tasks are organized and when each is completed.

## Health Outcome-Based WIC Nutrition Assessment for a Pregnant Woman

## Desired health outcome: Delivers a healthy, full-term infant while maintaining optimal health status.



Prenatal care (334)
Oral health care

Achieves a recommended maternal weight gain.

Pregravid weight status and maternal weight gain pattern (101, 111, 131, 132, 133)
Physical activity
Remains free from nutrition or food-related illness, complications, or injury.

Hemoglobin/hematocrit (201)
Pregnancy-related conditions, past and current (301, 302, 303, 311, 312, 321, 332, 333, 335-339)
Medical conditions (211, 341-349, 351-362)
Age at conception (331)
Oral health status (381)
Nutrition practices (427.1, 427.3, 427.4, 427.5)
Family and social environment (801, 802, 901, 902, 903)
Avoids alcohol, tobacco, and illegal drugs.

Use of alcohol, tobacco, or illegal drugs $(371,372)$

|  | Consumes a variety of foods to meet energy and nutrient requirements. |
| :--- | :--- |
|  | Nutrition practices (427.2) |
| $\longrightarrow$ | Ability to meet Dietary Guidelines for Americans (401) <br> Food security |

Makes an informed decision to breastfeed her infant.
$\longrightarrow$ Breastfeeding knowledge, support and potential contraindications

## Health Outcome-Based WIC Nutrition Assessment for a Breastfeeding Woman

## Desired health outcome: Achieves optimal health during the childbearing years and reduces the risk of chronic diseases.

Receives ongoing preventive health care including early postpartum care.


Oral health care
Achieves desirable postpartum weight or BMI.


Weight or BMI $(101,111)$
Weight gain with most recent pregnancy (133)
Physical activity
Remains free from nutrition or food-related illness, complications, or injury.
$\longrightarrow$ Hemoglobin/hematocrit (201)
$\longrightarrow \quad$ Pregnancy-related risk conditions with most recent pregnancy (303,

311, 312, 321, 332, 333, 335, 337, 339)
Medical conditions (211, 341-349, 351-362)
Age at conception (331)
Oral health status (381)
Nutrition practices (427.1, 427.3, 427.4)
Family and social environment ( $801,802,901,902,903$ )
Avoids alcohol, tobacco, and illegal drugs.

Use of alcohol, tobacco and illegal drugs $(371,372)$
Consumes a variety of foods to meet energy and nutrient requirements.

$\longrightarrow \quad$| Nutrition practices (427.2) |
| :--- |
| Ability to meet Dietary Guidelines for Americans (401) |


|  | Breastfeeds her infant(s) successfully. |
| :--- | :--- |
| $\longrightarrow$ | Sources of breastfeeding support |
| $\longrightarrow$ | Infant and maternal factors affecting breastfeeding (601, 602) |

## Health Outcome-Based WIC Nutrition Assessment for a Non-Breastfeeding Postpartum Woman

Desired health outcome: Achieves optimal health during the childbearing years and reduces the risk of chronic diseases.

|  Receives ongoing preventive health care including early postpartum care. <br>  Postpartum health care <br>  Oral health care |
| :--- |
| Achieves desirable [postpartum] weight or BMI. |

$\longrightarrow$
Weight or BMI $(101,111)$
Weight gain with most recent pregnancy (133)
Physical activity

Remains free from nutrition or food-related illness, complications, or injury.

Hemoglobin/hematocrit (201)
Pregnancy-related risk conditions with most recent pregnancy (303, 311, 312, 321, 332, 333, 335, 337, 339)
Medical conditions (211, 341-349, 351-362)
Age at conception (331)
Oral health status (381)
Nutrition practices (427.1, 427.3, 427.4)
Family and social environment ( $801,802,901,902,903$ )
Avoids alcohol, tobacco, and illegal drugs.
Use of alcohol and illegal drugs (372)
Tobacco use
Consumes a variety of foods to meet energy and nutrient requirements.
Nutrition practices (427.2)
Ability to meet Dietary Guidelines for Americans (401)
Food security

## Health Outcome-Based WIC Nutrition Assessment for an Infant

Desired health outcome: Achieves optimal growth and development in a nurturing environment and develops a foundation for healthy eating practices.

Receives ongoing preventive health care including screenings and immunizations.
Well child care (includes immunizations)

Achieves a normal growth pattern.
$\longrightarrow$ Growth pattern $(103,114,121,135)$

Physical activity
Remains free from nutrition or food-related illness, complications, or injury.

Hemoglobin/hematocrit (201)
Medical conditions (134, 152, 211, 341-357, 359, 360, 362, 382, 701, 703)
Birthweight/gestational age at birth $(141,142,151,153)$
Oral health status (381)
Nutrition practices (411.5, 411.9, 411.10, 411.11)
Family and social environment ( $801,802,901,902,903$ )
Environmental tobacco smoke

Consumes breast milk and/or iron-fortified infant formula and other foods as developmentally appropriate to meet energy and nutrient requirements.

| $\rightarrow$ | Primary nutrient source (411.1, 411.6) |
| :---: | :---: |
| $\rightarrow$ | Complementary foods (411.3) |
| $\rightarrow$ | Feeding pattern (411.7, 411.8) |
| $\rightarrow$ | Use of nursing bottles and cups (411.2) |
| $\longrightarrow$ | Ability to transition to complementary feeding after 4 months (428) |
|  | Food security |

Establishes a trusting relationship with parent(s) that contributes to positive feeding experiences.

Routine feeding practices (411.4)
Infant and maternal factors affecting breastfeeding (603, 702)

## Health-Outcome Based WIC Nutrition Assessment for a Child 12-60 Months of Age

Desired health outcome: Achieves optimal growth and development in a nurturing environment and begins to acquire dietary and lifestyle habits associated with a lifetime of good health.

## Receives ongoing preventive health care including screenings and immunizations.



Well child care (includes blood lead screening and immunizations)
Oral health care
Achieves a normal growth pattern.

Growth pattern (103, 114, 121, 135; 113 only for children after 24 months)
Physical activity

| Remains free from nutrition or food-related illness, complications or injury. |
| :--- |

$\longrightarrow$ Hemoglobin/hematocrit (201)
Medical conditions (134, 211, 341-349, 351-357, 359-362, 382)
Birthweight and gestational age at birth for children 12-23 months old (141, 142, 151)
Oral health status (381)
Nutrition practices (425.5, 425.7, 425.8, 425.9)
Family and social environment ( $801,802,901,902,903$ )
Environmental tobacco smoke

| Consumes a variety of foods to meet energy and nutrient requirements. |
| :--- |

Nutrition practices (425.1, 425.2, 425.6)
Ability to meet Dietary Guidelines for Americans only for children after 24 months (401)
Food security

Achieves developmental milestones including self-feeding.
Nutrition practices (425.3, 425.4)
Ability to transition to complementary feeding for children 12-23 months old (428)



