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| **Dairy Food Intake (Daily Servings)** | |
| **Protocol Id** | 050401 |
| **Version #** | 1 |
| **Description of Protocol** | These questions from the Five-Factor Screener may be useful to assess an individual’s approximate intake of several foods. These particular questions address dairy food intake. No portion-size questions are asked. This screener does not attempt to assess total diet. |
| **Specific Instructions** | None |
| **Protocol Text** | These questions are about the different kinds of foods you ate or drank during the PAST MONTH, that is, the past 30 days. When answering, please include meals and snacks eaten at home, at work or school, in restaurants, and anyplace else.  \*Read text if the respondent needs further clarification about the information requested.  1. During the past month . . . How often did you have MILK, either to drink or on cereal? Do NOT include small amounts of milk in coffee or tea.  \*Read if necessary: Do NOT include cream or soy milk. INCLUDE skim, no-fat, low-fat, whole milk, buttermilk, and lactose-free milk. Also INCLUDE chocolate or other flavored milks.  **00**  [ ]  Never  **01**  [ ]  1-3 times last month  **02**  [ ]  1-2 times per week  **03**  [ ]  3-4 times per week  **04**  [ ]  5-6 times per week  **05**  [ ]  1 time per day  **06**  [ ]  2 times per day  **07**  [ ]  3 times per day  **08**  [ ]  4 times per day  **09**  [ ]  5 or more times per day  **97**  [ ]  Refused  **99**  [ ]  Don’t know  2. During the past month . . . How often did you eat any kind of CHEESE? Include cheese as a snack; cheese on burgers, sandwiches, or pizza; and cheese mixed into such foods as lasagna, enchiladas, or casseroles.  \*Read if necessary: Do NOT count cream cheese.  **00**  [ ]  Never  **01**  [ ]  1-3 times last month  **02**  [ ]  1-2 times per week  **03**  [ ]  3-4 times per week  **04**  [ ]  5-6 times per week  **05**  [ ]  1 time per day  **06**  [ ]  2 times per day  **07**  [ ]  3 times per day  **08**  [ ]  4 times per day  **09**  [ ]  5 or more times per day  **97**  [ ]  Refused  **99**  [ ]  Don’t know  **Scoring Procedures** The following procedures are used to convert an individual’s responses to an estimate of that individual’s number of dairy servings:  1. The frequency reported categorically on the questionnaire is converted to the number of times consumed per day as shown below. In general, the midpoint of the frequency range was used.   |  |  | | --- | --- | | **Table 1. Conversion of Frequency Response to Times per Day** | | | **Frequency Response** | **Times per Day** | | Never | 0 | | 1-3 times per month | 0.067 | | 1-2 times per week | 0.214 | | 3-4 times per week | 0.5 | | 5-6 times per week | 0.786 | | 1 time per day | 1 | | 2 times per day | 2 | | 3 times per day | 3 | | 4 times per day | 4 | | 5 or more times per day | 5 |   2. The age- and gender-specific portion sizes (below) for each food are multiplied by the frequency calculated in Step 1.   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | **Table 2.** Median Portion Size in Pyramid Servings per Mention by Gender and Age for Dairy | | | | | | | | | **Food Group** | **Age Group** | | | | | | | | **18-27** | **28-37** | **38-47** | **48-57** | **58-67** | **68-77** | **78-99** | | **Men** | | | | | | | | | Milk (P1) | 1.250500 | 1.083000 | 1.100400 | 1.000000 | 0.916667 | 0.833333 | 0.750000 | | Cheese (P2) | 0.741000 | 0.641333 | 0.667000 | 0.600000 | 0.575000 | 0.499000 | 0.370000 | | **Women** | | | | | | | | | Milk (P1) | 1.000000 | 1.000000 | 0.999000 | 0.874000 | 0.750000 | 0.718750 | 0.750000 | | Cheese (P2) | 0.517000 | 0.470000 | 0.494000 | 0.494000 | 0.470000 | 0.379000 | 0.494000 |   3. Regression coefficients (see below) are applied according to the equation below.   |  |  |  | | --- | --- | --- | | **Table 3.** Estimated Regression Coefficients for Sum of Foods Predicting Servings of Dairy, by Gender | | | | **Parameter** | **Men** | **Women** | | Intercept (b0) | 0.417414 | 0.385301 | | b1 | 0.831739 | 0.782852 |   E (Dairy1/2) = b0 + b1 (NFG1P1 + NFG2P2)1/2  For men: Square root of Daily Pyramid Servings of Dairy = 0.417414 + 0.831739 (Square root of (Daily Frequency \* Gender/Age Specific Portion Size per Mention for Milk + Daily Frequency \* Gender/Age Specific Portion Size per Mention for Cheese))  For women: Square root of Daily Pyramid Servings of Dairy = 0.385301 + 0.782852 (Square root of (Daily Frequency \* Gender/Age Specific Portion Size per Mention for Milk + Daily Frequency \* Gender/Age Specific Portion Size per Mention for Cheese)) |
| **Selection Rationale** | Vetted against several other dairy intake questions, these questions from the National Cancer Institute (NCI) Five-Factor Screener were selected because they are low burden and have been validated against the 24-hour dietary recall. |
| **Source** | Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey (NHIS) 2005. Diet and Nutrition Questionnaire, questions NAC.020\_00.00 (question 1) and NAC.138\_00.00 (question 2).  National Cancer Institute, Five-Factor Screener 2005. National Health Interview Survey (NHIS) Diet and Nutrition, NAC.010–NAC.138. |
| **Language** | English, Spanish |
| **Participant** | An individual aged 18 years or older |
| **Personnel and Training Required** | The interviewer must be trained to conduct personal interviews with individuals from the general population. The interviewer must be trained and found to be competent (i.e., tested by an expert) at the completion of personal interviews. The interviewer should be trained to prompt respondents further if a "don’t know" response is provided.                       There are multiple modes to administer this question (e.g., paper-and-pencil and computer-assisted interviews). |
| **Equipment Needs** | While the source instrument was developed to be administered by computer, the PhenX Working Group acknowledges these questions can be administered in a noncomputerized format (i.e., paper-and-pencil instrument). Computer software is necessary to develop computer-assisted instruments. The interviewer will require a laptop computer/handheld computer to administer a computer-assisted questionnaire. |
| **Standards** | |  |  |  |  | | --- | --- | --- | --- | | **Standard** | **Name** | **ID** | **Source** | | Common Data Elements (CDE) | Person Daily Serving Dairy Intake Number | 2946990 | [CDE Browser](https://cdebrowser.nci.nih.gov/CDEBrowser/search?elementDetails=9&FirstTimer=0&PageId=ElementDetailsGroup&publicId=2946990&version=1.0) | | Logical Observation Identifiers Names and Codes (LOINC) | PhenX - dairy food protocol | 62281-1 | [LOINC](http://s.details.loinc.org/LOINC/62281-1.html?sections=Web) | |
| **General References** | Five-Factor Screener: [Validation Results](http://www.phenxtoolkit.org/index.php?pageLink=browse.si.additionalinfo&id=50000) |
| **Protocol Type** | Interviewer-administered questionnaire |
| **Derived Variables** | None |
| **Requirements** | |  |  | | --- | --- | | **Requirement Category** | **Required** | | Average time of greater than 15 minutes in an unaffected individual  Average time of greater than 15 minutes in an unaffected individual | No | | Major equipment  This measure requires a specialized measurement device that may not be readily available in every setting where genome wide association studies are being conducted. Examples of specialized equipment are DEXA, Echocardiography, and Spirometry | No | | Specialized requirements for biospecimen collection  This protocol requires that blood, urine, etc. be collected from the study participants. | No | | Specialized training  This measure requires staff training in the protocol methodology and/or in the conduct of the data analysis. | No | |