

Data Support Materials
Nutrition: Short Diet Questionnaire (NUT) Module
(Baseline - Comprehensive Assessment)

1. Background

The Short Diet Questionnaire (SDQ) (1) is a 36-item screener developed specifically for the Comprehensive assessment of the CLSA to rank usual frequency of consumption of selected nutrients and foods. It was validated on participants from the Quebec Longitudinal Study on Nutrition and Successful Aging (NuAge) (2).

i. What is the goal of the NUT module?

The SDQ is used to assess usual consumption frequencies of foods providing fats, fibre, calcium, and vitamin D, in addition to fruits and vegetables over the previous 12 months (1). It is important to note that the SDQ only includes food items related to certain nutrients and does not address questions about portion sizes. Consequently, the SDQ does not assess a participant's complete diet and cannot provide estimates of total energy intake or energy from macronutrients.

ii. How was this module developed?

Details about the development of the SDQ can be found in the evaluation study (1). The SDQ consists of 30 food items and 6 beverages which are included in the NUT module.

2. Implementation

i. How is it administered?

The NUT module was part of the In-Home Questionnaire for the Comprehensive cohort. Interviewers are provided with a User's Manual for reference during administration. This manual addresses questions in relation to inclusion/exclusion criteria for specific food and beverage items, as well as strategies to reduce non-response among participants.

The general format of each question is "How often do you usually eat/drink..." followed by the specific food or beverage item. Participants provide an estimated consumption frequency and select one of the following units of measurement: per day, per week, per month, or per year. The per year option was added in the CLSA administration of the SDQ.

ii. What type of data are collected using this module?

Alphanumeric data.

iii. How are the collected data prepared for users?

Based on the initial data collected, there are two derived variables created for each of the 36 food and beverage items. It is these derived variables that are available to users in the CLSA dataset.

The first derived variable converts the initial frequencies for each food/beverage item – given as either number of times per day, per week, per month, or per year – to a common frequency, number of times per day. Consumption frequencies initially provided as number of times per week, month, or year, were converted by dividing their values by 7, 30, or 365, respectively. Consumption frequencies of less than 12 times per year were not converted to frequencies per day, but rather were recoded as “Rarely/Never” before the conversion took place. The derived variables are named:

NUT_BRD_NB_COM	NUT_BTTR_NB_COM	NUT_CADR_NB_COM	NUT_CAJC_NB_COM	NUT_CALC_NB_COM
NUT_CAML_NB_COM	NUT_CHCK_NB_COM	NUT_CHOC_NB_COM	NUT_CHSE_NB_COM	NUT_CRRT_NB_COM
NUT_DAIR_NB_COM	NUT_DRSG_NB_COM	NUT_DSRT_NB_COM	NUT_EGGS_NB_COM	NUT_FBR_NB_COM
NUT_FISH_NB_COM	NUT_FRIE_NB_COM	NUT_FRUT_NB_COM	NUT_GREEN_NB_COM	NUT_LEGM_NB_COM
NUT_LFML_NB_COM	NUT_LWCS_NB_COM	NUT_LWYG_NB_COM	NUT_MEAT_NB_COM	NUT_MTOT_NB_COM
NUT_NUTS_NB_COM	NUT_O3EG_NB_COM	NUT_PATE_NB_COM	NUT_PTTO_NB_COM	NUT_PURE_NB_COM
NUT_SALT_NB_COM	NUT_SASG_NB_COM	NUT_SAUC_NB_COM	NUT_VGOT_NB_COM	NUT_WHML_NB_COM
NUT_YOGR_NB_COM				

The second derived variable indicates the frequency unit in which the participant initially provided their response. The categories are as follows:

- 0 = Rarely/ Never
- 1 = Per Day
- 2 = Per Week
- 3 = Per Month
- 4 = Per Year
- 98 = Don't know/No answer
- 99 = Refused.

Note that participants who originally responded with a consumption frequency of less than 12 times per year have been recoded to “Rarely/ Never” in this derived variable.

The derived variables are named:

NUT_BRD_COM	NUT_BTTR_COM	NUT_CADR_COM	NUT_CAJC_COM	NUT_CALC_COM
NUT_CAML_COM	NUT_CHCK_COM	NUT_CHOC_COM	NUT_CHSE_COM,	NUT_CRRT_COM
NUT_DAIR_COM	NUT_DRSG_COM	NUT_DSRT_COM	NUT_EGGS_COM	NUT_FBR_COM
NUT_FISH_COM	NUT_FRIE_COM	NUT_FRUT_COM	NUT_GREEN_COM	NUT_LEGM_COM
NUT_LFML_COM	NUT_LWCS_COM	NUT_LWYG_COM	NUT_MEAT_COM	NUT_MTOT_COM
NUT_NUTS_COM	NUT_O3EG_COM	NUT_PATE_COM	NUT_PTTO_COM	NUT_PURE_COM

NUT_SALT_COM	NUT_SASG_COM	NUT_SAUC_COM	NUT_VGOT_COM	NUT_WHML_COM
NUT_YOGR_COM				

While we do not provide the original data to the user, these two derived variables are sufficient to recreate the original data, should the user wish to do so, except in the case of an initial response of less than 12 times per year.

Below are some examples of original responses and the corresponding derived variables that are created. For simplicity, we assume the answers are from the question about the frequency of eating bread in all the examples; however, the method of creating the derived variables applies to all 36 food and beverage items.

- 1) **Participant refused to answer:**
NUT_BRD_NB_COM=9999 (Refused)
NUT_BRD_COM=99 (Refused).
- 2) **Participant answered that they didn't know:**
NUT_BRD_NB_COM=9998 (Don't know/No answer)
NUT_BRD_COM=98 (Don't know/No answer).
- 3) **Participant answered 3 times per day:**
NUT_BRD_NB_COM=3
NUT_BRD_COM=1 (Per Day).
- 4) **Participant answered 3 times per week:**
NUT_BRD_NB_COM=0.429
NUT_BRD_COM=2 (Per Week).
- 5) **Participant answered 3 times per month:**
NUT_BRD_NB_COM=0.1
NUT_BRD_COM=3 (Per Month).
- 6) **Participant answered 13 times per year:**
NUT_BRD_NB_COM=0.036
NUT_BRD_COM=4 (Per Year).
- 7) **Participant answered 3 times per year:**
NUT_BRD_NB_COM=9996 (Rarely/Never)
NUT_BRD_COM=0 (Rarely/Never).

In the case of missing or contradictory data, the derived variables were classified as Missing.

3. Use by researchers

i. What are the conditions of use?

Users must cite Shatenstein and Payette (1) as well as acknowledge the original funding for the creation of the instrument, as follows:

The development, testing and validation of the Short Diet Questionnaire (SDQ) were carried out among NuAge study participants as part of the Canadian Longitudinal Study on Aging (CLSA) Phase II validation studies, CIHR 2006–2008.

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References

- 1) Shatenstein B, and Payette H. Evaluation of the Relative Validity of the Short Diet Questionnaire for Assessing Usual Consumption Frequencies of Selected Nutrients and Foods. *Nutrients*. 2015 Aug; 7(8): 6362–6374.
- 2) Gaudreau P, Morais JA, Shatenstein B, Gray-Donald K, Khalil A, Dionne I, Ferland G, Fülöp T, Jacques D, Kergoat MJ, Tessier D, Wagner R, Payette H. Nutrition as a determinant of successful aging: description of the Quebec longitudinal study Nuage and results from cross-sectional pilot studies. *Rejuvenation Res*. 2007 Sep;10(3):377-86.