CHRIS Study

Interview –
Exposure to pollutants and hazardous substances

Version 1.1

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1. Introduction

This module stores information related to the exposure to substances at home and at the workplace, that were collected at the interview.

Participants book a morning appointment at the CHRIS study center, ranging from 7.45 to 8.45 a.m. Each study participant is assigned a workflow at the reception. If there are ten study participants (maximum capacity), there are ten different workflows, marked with the letters from "A" to "K". The current workflow is as follows: A-B-C-D-E-F-G-H-I-K. All the workflows can be found in the documentation of CHRIS Baseline/General information/Administrative data, in the file named "Workflows at baseline assessment". The interview occurs always after the spiralography and the blood drawing, for most as the last session, after the ECG assessment and the self-administered questionnaire (workflows B, C, E, F, H, I, L). For the remainder, the interview occurs after breakfast and just before the self-administered questionnaire (workflows A and G) or in between the blood drawing and the anthropometry (workflow D).

The interview full text and its corresponding answer lists are available at CHRIS Baseline/Interview. This specific module was developed based on the KORA study (*Kooperative Gesundheitsforschung in der Region Augsburg*) follow-up F4 questionnaire, specifically their module called "SCHADSTOFFEXPOSITION".

2. History version changes

Version 1 of this interview module was in use between August 24th,2011 and November 2nd, 2012, whereas Version 2 had been in use since November 5th, 2012.

Between the different versions, the following changes have occurred:

Version 1 to Version 2:

variables dropped: x0ex01, x0ex01a, x0ex02, x0ex02a, x0ex03, x0ex03a, x0ex04, x0ex04a, x0ex05, x0ex05a, x0ex06, x0ex06a, x0ex07, x0ex07a, x0ex08, x0ex08a, x0ex09, x0ex09a

question rephrased: x0ex10 (DE, IT), x0ex21 (DE, IT), x0ex22 (DE, IT), x0ex23 (DE, IT), x0ex24 (DE, IT), x0ex25 (DE, IT), x0ex26 (DE, IT), x0ex27 (DE, IT), x0ex28 (DE, IT), x0ex29 (DE, IT), x0ex30 (DE, IT), x0ex31 (DE, IT), x0ex32 (DE, IT).

The question order was not changed, and the filtering criteria remained the same between the two versions. As reported, the rephrasing of some questions and answers has occurred in both language versions of the interview.

3. Data cleaning

1. The main CHRIS dataset was loaded.
2. The variables with the further comments on exposure, x0exn1, x0exn2, and x0exn3, respectively on garden, indoor, and work/hobbies, were translated and classified. Comments regarding electrical shock, using the smartphone, or unsubstantiated exposures were disregarded.

3. For each dichotomous variable about exposures vicinity, x0ex01-x0ex09, had their missing values converted into:
    a) “Not in use” (-98) if the version (x0exver) was the second,
    b) “Unexpected missing” (-89) otherwise.
4. For each distance variable about exposures vicinity, x0ex01a-x0ex09a, had their missing values converted into:
    c) “Not in use” (-98) if the version (x0exver) was the second or its corresponding variable was “Not in use”,
    d) “Unexpected missing” (-89) otherwise.

    Additionally, when the variable was “9999” it was converted into “” (-88).

5. The dichotomous variables on gardening (x0ex10), insecticides at home (x0ex12), and wood preservatives at home (x0ex13) had their missing values into “unexpected missing”.
6. The dichotomous variable on pesticides use, x0ex11, dependent on “Yes” on x0ex10, had its missing values converted to
    a) “Missing by design” (-99) if they did not do gardening (x0ex10=”No”),
    b) “Unexpected missing” (-89) otherwise.
7. The variable on pesticides use frequency, x0ex11a, dependent on “Yes” on x0ex10 and on x0ex11a, had its missing values converted to
    a) “Missing by design” (-99) if they did not do gardening (x0ex10=”No”) or did not use pesticides (x0ex11=”No”),
    b) “Unexpected missing” (-89) otherwise.
8. The variable on insecticides use frequency, x0ex12a, dependent on “Yes” on x0ex12, had its missing values converted to
    c) “Missing by design” (-99) if they did not use insecticides (x0ex12=”No”),
    d) “Unexpected missing” (-89) otherwise.
9. The variable on wood preservatives use frequency, x0ex13a, dependent on “Yes” on x0ex13, had its missing values converted to
    e) “Missing by design” (-99) if they did not use wood preservatives (x0ex13=”No”),
    f) “Unexpected missing” (-89) otherwise.
10. The work/hobby exposures, x0ex20-x0ex32, had their missing values set to “Unexpected missing”.
11. The baseline dataset was saved.

4. Advices for the analysis

The analyst should keep in mind that the second version of the interview did not include questions on house exposure, meaning a missing answer cannot be considered as a lack of exposure.

Furthermore, the analyst should consider that these topics are highly dependent on personal beliefs, such as the fear of heavy metals and metals in general.

Finally, the analyst should always take into account that the operator in charge of carrying out the interview might have influenced how the participant reported their answers. The analyst should therefore adjust for the operator variable, x0_opintc, when possible.

5. References

Löwel H, Döring A, Schneider A, Heier M, Thorand B, Meisinger C. The MONICA Augsburg surveys - basis for prospective cohort studies. Gesundheitswesen. 2005;67(Sonderheft 1):S13–S18. DOI: 10.1055/s-2005-858234

Holle R, Happich M, Löwel H, Wichmann H-E. KORA-A Research Platform for Population Based Health Research. Gesundheitswesen. 2005;67(Sonderheft 1):S19–S25. DOI: 10.1055/s-2005-858235