

# **CHRIS Study**

## **Interview – Heart failure**

Version 1.1

24<sup>th</sup> April 2024

Authors: LB, MG

## 1. Introduction

This module stores information related to the heart failure history of the participant, that was 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.

## 2. History version changes

Version 1 of this interview module was in use between August 24<sup>th</sup>, 2011 and November 2<sup>nd</sup>, 2012; Version 2 was then in use since November 5<sup>th</sup>, 2012.

### Version 1 to Version 2

**variables dropped:** x0hf08c, x0hf08d

**question order changed:** x0hf07c (after x0hf07b => x0hf07)

**question filtering criteria changed:** x0hf07b

**question rephrased:** x0hf03 (de, it), x0hf06 (de, it), x0hf07 (de, it)

## 3. Data cleaning

1. The main CHRIS dataset was loaded.
2. All dichotomous variables, x0hf01, x0hf02, x0hf03, x0hf04, x0hf05, x0hf06, x0hf07, and x0hf08, had their observations transformed into “Unexpected missing” (-89) if they were missing, and their “I don’t know” answer option was transformed into the missing type “Don’t know” (-88).
3. All age variables, x0hf01b, x0hf02b, x0hf03b, x0hf04b, x0hf05b, and x0hf08b, had their observations set to:
  - a) “Missing by design” (-99) if they were missing and the corresponding symptom/disease was not reported (e.g., for x0hf01b, if x0hf01=“No”, “Missing by design” or “Don’t know”),
  - b) “Unexpected missing” (-89) if they were still missing,
  - c) “Don’t know” (-88) if the reported age was 99.
4. The variable on conspicuous findings, x0hf07c, had its missing observations set to:

- a) "Missing by design" (-99) if no ECG was ever prescribed (x0hf07="No", "Missing by design" or "Don't know"),
  - b) "Unexpected missing" (-89) otherwise.
5. The variable on the age at the first conspicuous findings, x0hf07b, had its missing observations set to:
  - a) "Missing by design" (-88) if the questionnaire version x0hfver was the first and no ECG was ever prescribed (x0hf07="No", "Missing by design" or "Don't know"),
  - b) "Missing by design" if the questionnaire version x0hfver was the second and no ECG conspicuous findings were ever found (x0hf07b="No" or "Missing by design"),
  - c) "Unexpected missing" (-89) otherwise.
6. If the ECG prescription variable, x0hf07, was "Unexpected missing" and an age of ECG conspicuous findings, x0hf07b, was reported (x0hf07b>0), the variable x0hf07 was corrected into "Yes".
7. The variables on heart failure in the previous 12 months and its treatment, x0hf08c and x0hf08d, had their observations transformed into:
  - a) "Not in use" (-98) if the version x0hfver was the second,
  - b) "Missing by design" (-99) if they were missing and no diagnosed heart failure was reported (x0hf08="No", "Missing by design" or "Don't know"),
  - c) "Unexpected missing" (-89) if they were still missing,
  - d) "Don't know" (-88) if the option "I do not know" was chosen.
8. The year variables, x0hf01a, x0hf02a, x0hf03a, x0hf04a, x0hf05a, x0hf07a, and x0hf08a, were dropped in favor of the age variables, x0hf01b, x0hf02b, x0hf03b, x0hf04b, x0hf05b, x0hf07b, and x0hf08b.
9. The free text variables describing the diseases/problems, x0hf04c, x0hf05c, x0hf06a, x0hf07d were translated and categorized when possible.
10. The variables storing the notes additional information on heart failure symptoms, diagnoses, and ECG findings, x0hfn1, x0hfn2, x0hfn3, x0hfn4, and x0hfnote, were translated and categorized when possible.
11. The baseline dataset was saved.

#### **4. Advices for the analysis**

The content of the nurse's notes, referring to heart failure, can include information on alternative reasons for shortness of breath, circumstances for swollen legs, reasons for which they underwent an ECG, as well as heart defects.

The current medications can be looked at in the drugs module x0dd\*, where the participant let their current medication packages be scanned by the nurse at the study center. Specifically, the variable x0dd25 describes the use of asthma/COPD medication, x0dd34 the use of calcium antagonists, the variable x0dd35 any cardiac therapy.

Note that more than 500 participants reported the age at which they had an ECG prescription, even though without conspicuous findings.

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](https://doi.org/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](https://doi.org/10.1055/s-2005-858235)