CHRIS Covid-19 Study

Questionnaire – Longitudinal information

Version 1.0

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1. Introduction

This module stores information related to SARS-CoV-2 testing, symptoms related to SARS-CoV-2 infection, and contact with infected or symptomatic individuals. From December 2020 onwards, more details about both swab and serum antibody testing were introduced. From January 2021 onwards, when SARS-CoV-2 vaccination became available in Italy, a question about vaccination was introduced.

The CHRIS COVID-19 study was designed to estimate the distribution of SARS-CoV-2 infection cases in Val Venosta/Vinschgau since 1 February 2020, as well as the proportion of asymptomatic individuals among positive cases, to characterize transmission within households, to assess the relationship between antibody response and disease severity, to observe the evolution of antibody response over time, to identify environmental, molecular and genetic risk factors, to identify long-term sequelae.

The CHRIS COVID-19 study was organized in three stages:

Stage 1: A stratified random sample of 1812 CHRIS study participants was selected to represent the adult population of the Val Venosta/Vinschgau district. Out of this sample, 845 CHRIS participants replied to an online or paper questionnaire, underwent a molecular test based on a nasopharyngeal swab and a serum antibody test.

Stage 2: All 13,393 CHRIS study participants and their consenting cohabitants were invited to fill in an online questionnaire on their past and current health status, and on SARS-CoV-2 (potential) exposure and testing. Each CHRIS participant received ten access tokens to let them and their cohabitants register online. A shorter questionnaire was then sent repeatedly to all participants every 4 weeks for an update on their symptoms, COVID-19 exposure, and testing. All individuals at risk of positivity to SARS-CoV-2 infection and their cohabitants have been invited for a nasopharyngeal swab molecular test and a serum antibody test at the CHRIS study center.

Stage 3: To trace and monitor antibody response over time, all individuals testing positive to either the nasopharyngeal or the serum test in Stages 1 or 2 have been invited to repeat the serum antibody test every three months for a year, since their first measurement.

The Limesurvey baseline and follow-up questionnaires were accessible online between July 2020 and August 2021. The first longitudinal information was collected together with the baseline information. Since September 1st, 2020, a reminder with a personal link to the Limesurvey follow-up questionnaire was sent to the participant by e-mail or SMS 28 days after the submission of the last questionnaire.

Participants were asked to fill-out the follow-up questionnaires until they were identified as potentially infected or until the end of the screening period. Participants who were invited to undergo a serological antibody screening and tested negative were invited again to fill-out the questionnaires.

The baseline and follow-up questionnaire full texts are available at J:\5-5 New Research Initiatives\CHRIS-Covid-19\Questionnaires.

2. History version changes

Version 1.0 of this online survey was in use between July 4th, 2020, and December 16th, 2020; Version 1.1 was in use between December 16th, 2020, and January 19th, 2021; Version 1.2 had been in use since

January 20th, 2021, until the end of the screening phase. Between July 13th, 2020, and August 31st, 2020, a paper-based questionnaire of Version 1.0 was in use for the random sample data collection as well.

Between the different versions, the following changes have occurred:

Version 1.0 to Version 1.1:

variables dropped: cclq01, cclq05, cclq15

variables added: cclq01a, cclq01b, cclq01c1, cclq01c2, cclq01c3, cclq01c4, cclq01c5, cclq01c6, cclq05a, cclq05b, cclq05c1, cclq05c2, cclq05c3, cclq05c4, cclq08

question rephrased: cclq00

Version 1.1 to Version 1.2:

variables added: cclq16 cclq17a cclq17b

question rephrased: cclq00

Data cleaning process:

variables added: cclqcount

3. Data cleaning

1. The CHRIS COVID-19 longitudinal information dataset was loaded in Stata.
2. The sub do-file cr-z-do_corrections_follow-up.do was run to implement the corrections to questionnaire answers reported by telephone by participants to the study call center.
3. The respondent variable cclqresp was filled-in from the baseline questionnaire to the follow-up questionnaire records.
4. For the number of household members variable cclqinha:
    a. Values between 21 and 99 were set to “Out of range” (-86);
    b. Missing values were set to “Missing by design” (-99) for age below 14 years old and for ccbqresp=2 or ccbqresp=3;
    c. Missing values were set to “Unexpected missing” (-89) otherwise.
5. The value labels were defined and assigned to the variables as appropriate.
6. Only in the follow-up questionnaires, there was a question on whether there were any news on symptoms, contacts, or testing. It was called cclq00. It was set to “Not in use” (-98) for the baseline questionnaire records.
7. For the swab test variable cclq01:
    a. Value 5 was transformed to “Prefer not to respond/don’t know” (-88);
    b. Missing values were set to “Not in use” (-98) for questionnaire versions 1.1 and 1.2;
    c. Missing values were set to “Missing by design” (-99) if the follow-up filter was 2;
    d. Missing values were set to “Unexpected missing” (-89) otherwise.
8. For the swab test variable cclq01a:
    a. Value 3 was transformed to “Prefer not to respond/don’t know” (-88);
    b. Missing values were set to “Missing by design” (-99) if the follow-up filter cclq00 was 2;

c. Missing values were set to “Yes” (1) if there was a recent swab test since the last questionnaire (1 ≤cclq01 ≤3);
d. Missing values were set to “No” (2) if there was no recent swab test (cclq01=4);
e. Missing values were set to “Prefer not to respond/don’t know” (-88) if swab test cclq01 was -88;
f. Missing values were set to “Unexpected missing” (-89), otherwise.

9. For the swab test result variable (cclq01b):
    a. Value 4 was transformed to “Refuse to answer” (-87);
    b. Missing values were set to “Missing by design” (-99) if the follow-up filter was 2 or there was no recent swab test (cclq01a=2 or -88);
    c. Missing values were set to “Yes” (1) if the swab test result was positive (cclq01=1);
    d. Missing values were set to “No” (2) if the swab test was negative (cclq01=3);
    e. Missing values were set to “Don't know/don’t know the result yet” (3) if the swab test result was unknown (cclq01=2);
    f. Missing values were set to “Prefer not to respond/Do not know” (-88) if the swab test cclq01 was -88;
    g. Missing values were set to “Unexpected missing” (-89), otherwise.
10. The responses to positive, negative, and unknown test results were merged into one variable per swab test type (cclq01c1 to cclq01c6).
11. The swab test result variable (cclq01b) was changed from “No” (2) to “Yes” (1) in case any of the swab test type variables was 1.
12. For the swab test type variables (cclq01c1 to cclq01c6):
    a. Missing values were set to “Not in use” (-98) for questionnaire version 1.0;
    b. Missing values were set to “Missing by design” (-99) if the follow-up filter was 2 or the swab test cclq01a was 2 or -88 or swab test result cclq01b was -87;
    c. For cclq01c1 to cclq01c5, missing values and 2 was set to “Prefer not to respond/don’t know” (-88) if cclq01c6 was 1;
    d. Missing values were set to “Unexpected missing” (-89), otherwise.
13. For the isolation (cclq02), hospitalization (cclq03), and medication (cclq04) variables:
    a. Missing values were set to “Missing by design” (-99) if the follow-up filter was 2;
    b. Values 4 (cclq02, cclq03) and 3 (cclq04) were transformed to “Prefer not to respond/don’t know” (-88), respectively;
    c. Missing values were set to “Unexpected missing” (-89), otherwise.
14. For the immunity assessment variable (cclq05):
    a. Value 5 was transformed to “Prefer not to respond/don’t know” (-88);
    b. Missing values were set to “Not in use” (-98) for questionnaire versions 1.1 and 1.2;
    c. Missing values were set to “Missing by design” (-99) if the follow-up filter was 2;
    d. Missing values were set to “Unexpected missing” (-89), otherwise.
15. For the immunity assessment variable (cclq05a):
    a. Value 3 was transformed to “Prefer not to respond/don’t know” (-88);
    b. Missing values were set to “Missing by design” (-99) if the follow-up filter was 2;
    c. Missing values were set to “Yes” (1) if there was a recent immunity assessment (1≤cclq05≤ 3);

d. Missing values were set to “No” (2) if there was no recent immunity assessment (cclq05= 4);
e. Missing values were set to “Prefer not to respond/don’t know” (-88) if immunity assessment cclq05 was -88;
f. Missing values were set to “Unexpected missing” (-89), otherwise.

16. For the immunity assessment result variable (cclq05b):
    a. Value 4 was transformed to “Refuse to answer” (-87);
    b. Missing values were set to “Missing by design” (-99) if the follow-up filter was 2 or the immunity assessment cclq05a was 2 or -88;
    c. Missing values were set to “Yes” (1) if the immunity assessment was positive (cclq05=1);
    d. Missing values were set to “No” (2) if the immunity assessment was negative (cclq05=3);
    e. Missing values were set to “Don't know/don’t know the result yet” (3) if the immunity assessment result was unknown (cclq05=2);
    f. Missing values were set to “Prefer not to respond/Do not know” (-88) if the immunity assessment cclq05 was -88;
    g. Missing values were set to “Unexpected missing” (-89), otherwise.
17. The responses to positive, negative, and unknown test results were merged into one variable per immunity assessment type (cclq05c1 to cclq05c4).
18. The immunity assessment result variable (cclq05b) was changed from “No” (2) to “Yes” (1) in case any of the immunity assessment type variables (cclq05c1- cclq05c4) was 1.
19. For the immunity assessment type variables (cclq05c1 to cclq05c4):
    a. Missing values were set to “Not in use” (-98) for questionnaire version 1.0;
    b. Missing values were set to “Missing by design” (-99) if the follow-up filter was 2 or the swab test cclq01a was 2 or -88 or swab test result cclq01b was -87;
    c. For cclq05c1 to cclq05c3, missing values and 2 was set to “Prefer not to respond/don’t know” (-88) if cclq05c4 was 1;
    d. Missing values were set to “Unexpected missing” (-89), otherwise.
20. For all symptom variables cclq06 and cclq06a to cclq06z, missing responses were set to “Missing by design” (-99) if the follow-up filter was 2.
21. For symptoms variable cclq06:
    a. missing responses were set to “Prefer not to respond/don’t know” (-88) if the response option “Prefer not to respond/don’t know” was selected;
    b. Missing values were set to “Unexpected missing” (-89) otherwise;
    c. Values -89, -88, or 2 were set to “Yes” (1) if any symptom was selected.
22. For the symptom variables cclq06a to cclq06z:
    a. Missing values were set to “No” (2) if a paper-based questionnaire was used and cclq06=1;
    b. Missing values and 2 were set to “Missing by design” (-99) if no recent symptoms were reported (cclq06=2 or cclq06=-88);
    c. Missing values were set to “Unexpected missing” (-89) if any recent symptom was reported (cclq06=1 or cclq06=-89).
23. For the symptom date variable cclq07, free text responses from the paper-based questionnaire were transformed in date format YYYY-MM-DD. If only the month was indicated, the 15th day of

the month was used. The first and the last day of the month were used if symptoms were reported to arose “at the beginning” or “at the end” of the month, respectively.

24. For the symptom duration variable cclq08:
    a. Missing values were set to “Not in use” (-98) for questionnaire version 1.0;
    b. Missing values were set to “Missing by design” (-99) if the follow-up filter was 2 or the symptom variable cclq06 was 2 or -88;
    c. Value 6 was transformed to “Prefer not to respond/don’t know” (-88);
    d. Missing values were set to “Unexpected missing” (-89) otherwise.
25. For the physician consultation variable cclq09:
    a. Values 2 and 3 were set to “Missing by design” (-99) if a paper-based questionnaire was used and no recent symptoms were reported (cclq06=2);
    b. Missing values and value 4 were set to “Missing by design” (-99) if the follow-up filter was 2 or the symptom variable cclq06 was 2 or -88;
    c. Value 5 was transformed to “Prefer not to respond/don’t know” (-88);
    d. Missing values were set to “Unexpected missing” (-89) otherwise.
26. For the limitation in daily activity variable cclq10:
    a. Missing values and value 2 were set to “Missing by design” (-99) if the follow-up filter was 2 or the symptom variable cclq06 was 2 or -88;
    b. Value 3 was transformed to “Prefer not to respond/don’t know” (-88);
    c. Missing values were set to “Unexpected missing” (-89) otherwise.
27. For the contact with non-symptomatic individuals variable cclq15, missing values were set to “Not in use” (-98) for questionnaire versions 1.1 and 1.2.
28. For all contact variables cclq11 to cclq15,
    a. Missing values and value 4 were set to “Missing by design” (-99) if the follow-up filter was 2. In addition, for the contact within the same household variables cclq11 and cclq13, missing values were set to “Missing by design” (-99) if a household size of 1 was reported and for the contact with non-symptomatic individuals variable cclq15, missing values were set to “Missing by design” (-99) for all questionnaires except the baseline questionnaire;
    b. Value 4 was transformed to “Prefer not to respond/don’t know” (-88);
    c. Missing values were set to “Unexpected missing” (-89) otherwise.
29. For the vaccination variable cclq16,
    a. Missing values were set to “Not in use” (-98) for questionnaire versions other than 1.2;
    b. Missing values were set to “Missing by design” (-99) if the follow-up filter was 2;
    c. Value 4 was transformed to “Prefer not to respond/don’t know” (-88);
    d. Missing values were set to “Unexpected missing” (-89) otherwise.
30. The vaccination date variables cclq17a and cclq17b were stored in the date format YYYY-MM-DD.
31. The longitudinal information dataset (cclq*) was saved.

Stata v16.1 was used for the data cleaning process. The do-file is available at the LINK-TO-cr_07b_clean_LQ_baseline-followup.do.

4. Data structure

The variables listed in table 1 constitute all the variables associated with the survey responses, that were not socio-demographic information nor previous medical history.

Observations are defined as questionnaires. Multiple observations per participants are possible (see the count variable cclqcount).

In this table, version 1 refers to the paper questionnaire, whereas version 2 to the version 1.0 of the online questionnaire, version 3 to the online questionnaire version 1.1, and version 4 to the online questionnaire version 1.2.

Table 1. Longitudinal information variables list

Variable	Description	Unit of reference	Coding	Filter	Notes	Version	Available	Derived
cclq00	Follow-up questionnaire update		1 Yes 2 No			2,3,4	Yes	No
cclq01	Have you had a naso/oropharyngeal swab for novel coronavirus infection since <cclqldate>? (Version 1)		1 Yes, and tested positive 2 Yes, but I don't know the result yet 3 Yes, and tested negative 4 No	cclqbline=1 or cclq00=1		1,2	Yes	No
cclq01a	Have you had a naso/oropharyngeal swab for novel coronavirus infection since <cclqldate> ? (Version 2)		1 Yes 2 No	cclqbline=1 or cclq00=1	For version 1 and 2, the information was imputed from cclq01	1,2,3,4	Yes	Yes
cclq01b	Did any swabs taken detect a novel coronavirus infection (positive test) since <cclqldate>?		1 Yes 2 No 3 Don't know/don't know the result yet	cclq01a=1	For version 1 and 2, the information was imputed from cclq01	1,2,3,4	Yes	Yes
cclq01c1	Do you recall which type of test was performed? Standard swab (molecular PCR) analyzed at a laboratory		1 Yes 2 No	cclq01a=1	Collapsed from the questions 'Do you recall which type of test was positive?', 'Do you recall which type of test was negative?', and 'Do you recall which type of test was performed?'	3,4	Yes	Yes
cclq01c2	Do you recall which type of test was performed?		1 Yes 2 No	cclq01a=1	Collapsed from the questions 'Do you recall	3,4	Yes	Yes

Variable	Description	Unit of reference	Coding	Filter	Notes	Version	Available	Derived
	Swab followed by rapid test (antigen test) administered by trained operator				which type of test was positive?', 'Do you recall which type of test was negative?', and 'Do you recall which type of test was performed?'			
cclq01c3	Do you recall which type of test was performed? Self-administered swab followed by rapid test (antigen test)		1 Yes 2 No	cclq01a=1	Collapsed from the questions 'Do you recall which type of test was positive?', 'Do you recall which type of test was negative?', and 'Do you recall which type of test was performed?'	3,4	Yes	Yes
cclq01c4	Do you recall which type of test was performed? Saliva swab		1 Yes 2 No	cclq01a=1	Collapsed from the questions 'Do you recall which type of test was positive?', 'Do you recall which type of test was negative?', and 'Do you recall which type of test was performed?'	3,4	Yes	Yes
cclq01c5	Do you recall which type of test was performed? Other test		1 Yes 2 No	cclq01a=1	Collapsed from the questions 'Do you recall which type of test was positive?', 'Do you recall which type of test was negative?', and 'Do you recall which type of test was performed?'	3,4	Yes	Yes
cclq01c6	Do you recall which type of test was performed? Prefer not to respond/Do not know		1 Yes 2 No	cclq01a=1	Collapsed from questions 'Do you recall which type of test was positive?', 'Do you recall which type of test was negative?', and 'Do you recall which type of test was performed?'	3,4	Yes	Yes
cclq02	Have you been quarantined on suspicion or confirmation of the novel coronavirus infection or		1 Yes, isolated in a room/at home alone 2 Yes, but not in total	cclqbline=1 or cclq00=1		1,2,3,4	Yes	No

Variable	Description	Unit of reference	Coding	Filter	Notes	Version	Available	Derived
	isolated on precautionary grounds since <cclqldate>?		isolation from coinhabitants 3 No					
cclq03	Have you been hospitalized on suspicion or confirmation of the novel coronavirus infection since <cclqldate>?		1 Yes, hospitalized under intensive care 2 Yes, hospitalized in another ward 3 No	cclqbline=1 or cclq00=1		1,2,3,4	Yes	No
cclq04	Have you been prescribed medication or therapies on suspicion or confirmation of the novel coronavirus infection since <cclqldate>?		1 Yes 2 No	cclqbline=1 or cclq00=1		1,2,3,4	Yes	No
cclq05	Have you had one or more samplings (blood, urine, or else) to assess your immunity to the novel coronavirus since <cclqldate>? (Version 1)		1 Yes, and it tested positive 2 Yes, but I don't know the result yet 3 Yes, and it tested negative 4 No	cclqbline=1 or cclq00=1		1,2	Yes	No
cclq05a	Have you had one or more samplings (blood, urine, or else) to assess your immunity to the novel coronavirus since <cclqldate>? (Version 2)		1 Yes 2 No 3 Don't know/don't know the result yet	cclqbline=1 or cclq00=1	For version 1 and 2, the information was imputed from cclq05	1,2,3,4	Yes	Yes
cclq05b	Did any specimen taken detect a novel coronavirus infection (positive test) since <cclqldate>?		1 Yes 2 No 3 Don't know/don't know the result yet	cclq05a=1	For version 1 and 2, the information was imputed from cclq05	1,2,3,4	Yes	Yes
cclq05c1	Do you recall which type of test was performed? Venous blood draw		1 Yes 2 No	cclq05a=1	Collapsed from the questions 'Do you recall which type of test was positive?', 'Do you recall which type of test was negative?', and 'Do you recall which type of test was performed?'	3,4	Yes	Yes
cclq05c2	Do you recall which type of test was performed? Fingertip prick test		1 Yes 2 No	cclq05a=1	Collapsed from the questions 'Do you recall which type of test was positive?', 'Do you recall which type of test was negative?', and 'Do you	3,4	Yes	Yes

Variable	Description	Unit of reference	Coding	Filter	Notes	Version	Available	Derived
					recall which type of test was performed?'			
cclq05c3	Do you recall which type of test was performed? Other test		1 Yes 2 No	cclq05a=1	Collapsed from the questions 'Do you recall which type of test was positive?', 'Do you recall which type of test was negative?', and 'Do you recall which type of test was performed?'	3,4	Yes	Yes
cclq05c4	Do you recall which type of test was performed? Prefer not to respond/Do not know		1 Yes 2 No	cclq05a=1	Collapsed from questions 'Do you recall which type of test was positive?', 'Do you recall which type of test was negative?', and 'Do you recall which type of test was performed?'	3,4	Yes	Yes
cclq06	Except for possible symptoms you may regularly suffer from, have you had any of the following symptoms since <cclqldate>?		1 Yes 2 No	cclqbline=1 or cclq00=1	Derived from exclusive response options 'None of the above' and 'Prefer not to respond/Do not know'	1,2,3,4	Yes	Yes
cclq06a	Fever		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06b	Shivers or chills		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06c	Fatigue or tiredness		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06d	Joint or muscle pain		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06e	Headache		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06f	Lack of appetite		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06g	Loss of taste		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06h	Loss of smell		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No

Variable	Description	Unit of reference	Coding	Filter	Notes	Version	Available	Derived
cclq06i	Ear pain (otitis)		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06j	Redness or burning eyes		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06k	Eye pain		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06l	Cold		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06m	Sore throat or hoarseness		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06n	Dry cough		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06o	Wet cough		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06p	Coughing up blood		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06q	Shortness of breath		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06r	Chest pain		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06s	Tachycardia or palpitations		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06t	Abdominal pain		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06u	Nausea		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06v	Vomiting		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06w	Diarrhoea		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06x	Pale or oily faeces		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06y	Skin hypersensitivity		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq06z	Itching or rash		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq07	On approximately which date did the first symptoms appear?		<date>	cclq06=1		1,2,3,4	Yes	No

Variable	Description	Unit of reference	Coding	Filter	Notes	Version	Available	Derived
cclq08	How long have you had symptoms?		1 Still present 2 1-3 days 3 4-6 days 4 1-2 weeks 5 3 weeks or more	cclq06=1		3,4	Yes	No
cclq09	For the reported symptoms, have you consulted a physician?		1 Yes, and I took medication 2 Yes, and I did not take medication 3 No, but I took medication 4 No, I neither consulted a physician nor I took medication	cclq06=1		1,2,3,4	Yes	No
cclq10	Because of the reported symptoms, have you experienced limitations in your daily activities?		1 Yes 2 No	cclq06=1		1,2,3,4	Yes	No
cclq11	Since <cclqldate>, have you been in close contact with someone with coronavirus infection living with you?		1 Yes, regularly (1+ time/week) 2 Yes, occasionally (<1 time/week) 3 No, never	(cclqbline=1 or cclq00=1) & cclqinha>1		1,2,3,4	Yes	No
cclq12	Since <cclqldate>, have you been in close contact with someone with coronavirus infection NOT living with you?		1 Yes, regularly (1+ time/week) 2 Yes, occasionally (<1 time/week) 3 No, never	cclqbline=1 or cclq00=1		1,2,3,4	Yes	No
cclq13	Since <cclqldate>, have you been in close contact with someone with symptoms living with you?		1 Yes, regularly (1+ time/week) 2 Yes, occasionally (<1 time/week) 3 No, never	(cclqbline=1 or cclq00=1) & cclqinha>1		1,2,3,4	Yes	No
cclq14	Since <cclqldate>, have you been in close contact with someone with symptoms NOT living with you?		1 Yes, regularly (1+ time/week) 2 Yes, occasionally (<1 time/week) 3 No, never	cclqbline=1 or cclq00=1		1,2,3,4	Yes	No
cclq15	Since <cclqldate>, have you been in close contact with someone without symptoms NOT living with you?		1 Yes, regularly (1+ time/week) 2 Yes, occasionally (<1	cclqbline=1 or cclq00=1		1,2	Yes	No

Variable	Description	Unit of reference	Coding	Filter	Notes	Version	Available	Derived
			time/week) 3 No, never					
cclq16	Have you received a vaccine against the novel coronavirus?		1 Yes, vaccination completed 2 Yes, vaccination ongoing 3 No	cclqbline=1 or cclq00=1		4	Yes	No
cclq17a	When did you receive the first dose of vaccine?		<date>	cclq16=1 or cclq16=2		4	Yes	No
cclq17b	When did you receive the last dose of vaccine? (same date as first dose in case of single dose vaccines)		<date>	cclq16=1 or cclq16=2		4	Yes	No
cclqdate	Submission date of CHRIS COVID-19 questionnaire		<date>				Yes	No
cclqldate	Date of last CHRIS COVID-19 questionnaire		<date>		For baseline questionnaires, the reference date is February 1st, 2020		Yes	No
cclqlang	Language used in CHRIS COVID-19 questionnaire		1 German 2 Italian				Yes	No
cclqresp	For whom are you filling out this questionnaire?		1 For myself 2 For an adult person living in my household 3 For a minor person or a person with legal guardian living in my household		as reported in the baseline questionnaire		Yes	No
cclqver	Version of CHRIS COVID-19 questionnaire		1 Paper-based, random sample data collection 2 Limesurvey, CHRIS-Covid-19 v1.0 3 Limesurvey, CHRIS-Covid-19 v1.1 4 Limesurvey, CHRIS-Covid-19 v1.2				Yes	Yes
cclqbline	CHRIS Covid-19 Baseline questionnaire		<boolean>				Yes	Yes
cclqinha	Number of household members	persons	<integer>	cclqresp=1	as reported in the baseline questionnaire		Yes	No
cclqcount	Counter of longitudinal questionnaires		0 Baseline 1 First follow-up				Yes	Yes

Variable	Description	Unit of reference	Coding	Filter	Notes	Version	Available	Derived
			2 Second follow-up 3 Third follow-up 4 Fourth follow-up 5 Fifth follow-up 6 Sixth follow-up 7 Seventh follow-up 8 Eighth follow-up 9 Ninth follow-up 10 Tenth follow-up 11 Eleventh follow-up 12 Twelfth follow-up					

5. Advices for the analysis

The longitudinal information dataset was collected with both the baseline and the follow-up questionnaires. The number of questionnaires collected per participant varies between one and twelve. The dataset is structured to have one row per questionnaire completed.

The analyst should keep in mind that the participation to the survey was open during the whole screening study period between July 2020 and August 2021. Questionnaires could be filled out both for the participant themselves and as a proxy for cohabitants.

For participants to the random sample examination, a paper-based questionnaire was available at the CHRIS study center in case the baseline questionnaire had not been filled-out online yet.

Cohabitants of potentially positive individuals (either because of a contact or because of a self-reported positive test) were also invited to the serum antibody screening and could fill -out the baseline questionnaire at the study center if they had not yet participated to the online survey.

6. References

Pattaro C, Barbieri G, Foco L, Weichenberger CX, Biasiotto R, De Grandi A, Fuchsberger C, Egger C, Amon VSC, Hicks AA, Mian M, Mahlknecht A, Lombardo S, Meier H, Weiss H, Rainer R, Dejaco C, Weiss G, Lavezzo E, Crisanti A, Pizzato M, Domingues FS, Mascalzoni D, Gögele M, Melotti R, Pramstaller PP. Prospective epidemiological, molecular, and genetic characterization of a novel coronavirus disease in the Val Venosta/Vinschgau: the CHRIS COVID-19 study protocol. Pathog Glob Health. 2022 Mar;116(2):128-136. doi: 10.1080/20477724.2021.1978225. PubMed PMID: 34637685

Giardiello D, Melotti R, Barbieri G, Gögele M, Weichenberger CX, Foco L, Bottigliengo D, Barin L, Lundin R, Pramstaller PP, Pattaro C. Determinants of SARS-CoV-2 nasopharyngeal testing in a rural community sample susceptible of first infection: the CHRIS COVID-19 study. Pathog Glob Health. 2023. doi: 10.1080/20477724.2023.2191232

Barbieri G, Pizzato M, Gögele M, Giardiello D, Weichenberger CX, Foco L, Bottigliengo D, Bertelli C, Barin L, Lundin R, Pramstaller PP, Pattaro C, Melotti R. Trends and symptoms of SARS-CoV-2 infection: a longitudinal study on an Alpine population representative sample. BMJ Open 2023;13:e072650. doi: 10.1136/bmjopen-2023-072650