

# Automated Paper Documentation of Blaise III Datamodels

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## **Abstract**

CAPI questionnaires are ideally “self-documenting” - that is, someone who is familiar with Blaise can understand them. However, there are many users of the information contained in a datamodel, and some are more comfortable with paper documents similar to PAPI questionnaires.

Existing Blaise tools cannot create such documents, since they do not make routing information available. So each project within SSD has managed the problem in a different way, some of which involve a heavy manual element.

The paper discusses the different kinds of documentation required, the methods used to manage the problem in the past, and the development of a tool which automates the task.

## **1. Introduction**

The use of CAPI has simplified many parts of the survey process. Using the Blaise language a datamodel specification can be built up from small blocks into a very large instrument - often much larger than might have been attempted in a non-CAPI project.

As the specification grows in size, the relationships between variables can become more complex and difficult to understand - until the project fails because the data is no longer comprehensible. It could be said that CAPI becomes a victim of its success.

In many respects, the Blaise language is self-documenting. The basic language elements are easily mastered, and there is a facility to add an explanatory text wherever a cryptic expression might appear, such as compound conditional statements and elaborate checks.

Even so, sheer size can defeat the attempt to understand the details of a specification even for an expert with the Blaise language, and such expertise is not always available to the end users of the data.

The client or end user is not the only person in need of some form of additional documentation of the data collected using CAPI methods.

The researcher or other specialist who creates the datamodel specification will wish to verify that variables have been collected under appropriate conditions. Trainers and Field support staff will require reference material based on the survey instrument, but usually in paper form. Secondary analysts and data archives will wish to have the same information as the original clients.

Because of this the provision of paper documentation is always a high priority, and is often a mandatory condition of contracts with clients.

The Blaise metadata tools (Setup Generator in Blaise 2, Cameleon in Blaise III) do not provide access to information on data relationships or routing. In Social Survey Division (SSD) of the UK Office for National Statistics, therefore, each project has adopted a different approach to the problem of documenting their CAPI instruments.

One of the commonest methods used was semi-automated: starting with the output from the Blaise 2 'Paper Questionnaire' (or 'PAPI') utility, if routing was required the researcher would add it in a word processor after inspecting the specification source.

Another popular method started directly from the specification source. All unwanted material was removed. Usually this meant removing everything except the contents of QUEST paragraphs, but if routing was required it could be added by editing the ROUTE paragraph to make it more readily understood by people who did not know Blaise.

In both these methods, so much effort would be required to document the routing that it was often left out altogether.

Very often the full procedure was only used at the start of the project. For subsequent versions of the instrument changes were made directly to the corresponding document. This invites the possibility that the documentation will drift out of date with the instrument, even without the inherently error-prone nature of manual preparation.

These methods are expensive in skilled personnel. The work is often impossible to delegate to clerical staff, because of the need either for Blaise expertise or familiarity with the particular datamodel specification.

They are also very expensive in time, and - if any further argument against manual preparation is needed - it is often the case that the documentation is required for discussion with clients at key phases of the project, or for briefing of interviewers. The up-to-date paper document must be available soon after the datamodel specification is finalised.

All of the information required is buried in the datamodel specification, so it is natural to look for an automated method of extracting and presenting it.

SSD and others encouraged Statistics Netherlands to develop a suitable automatic documentation tool, but because of the Blaise III development

there was insufficient resource to take on the project. Statistics Netherlands did offer to provide some help and advice if the tool was developed within SSD and so on that basis the project was opened.

The analysis for the project involved two strands: determining the desired output format, and understanding the mechanics of locating and extracting the information to be output from the metadata. Development would then proceed by translating this algorithm into software and adding a user interface to control it.

In the Blaise 2 system, routing information is not stored in an accessible form within the metadata files; it becomes part of the intermediate source code which is generated by the syntax checker and then compiled by the Turbo Pascal compiler. It would be necessary to walk through the datamodel specification source files to gather the routing information, in effect replicating the Blaise 2 syntax checker but storing the routing information in a usable format.

Initial discussions suggested that, whereas for Blaise 2 this would be unavoidable, for Blaise III it would be much easier and more future-proof to access the metadata directly using the library of object handlers already created for the Control Centre, the Data Entry Program, Cameleon, and the rest of the Blaise III system toolset.

Because the methods required to implement the documenter tool for the two versions of Blaise would have been quite different - to the extent of being two separate tools with very little in common between them - it was decided to leave aside the development of a Blaise 2 tool. Separate development would have been too expensive, and in any case it was expected that most projects would be migrating to Blaise III as soon as possible.

SSD accepted the offer of assistance from Statistics Netherlands, and I spent two days at Voorburg discussing the new object-oriented methods of manipulating metadata in Blaise III. Thanks are due to Maarten Schuerhoff for facilitating the discussions and to Jean-Pierre Kent for patiently explaining the mechanics of the metadata objects and for providing the expression-to-text delegator object.

During analysis some important features were noted as desirable. Users of the tool should not have to concern themselves with the internals of the metadata files, the tool should not be sensitive to changes in the Blaise language; finally, the output format should be flexible and configurable.

The actual implementation breaks the tool into 2 separate programs, an Object Pascal program linked with the Statistics Netherlands object library, which collects the metadata required, and a Clipper program which presents it. A set of intermediate datafiles is used to communicate between the two programs.

This separation of functions makes the tool easier to maintain. There is more expertise with Clipper than with Object Pascal within SSD, and whereas the metadata reader is likely to be quite stable, the presentation software will need to be flexible to meet future requirements.

Initially the project was concerned with data dictionaries and code re-use. However, it was quickly redirected towards the production of paper documentation. One aim of the original project was retained, however: a variable should be understandable in isolation, with all of the conditions under which it is asked collected together.

## 2. Technical description

In the metadata files, the syntactic elements of the datamodel specification are stored as objects. Looking at the RULES section, for instance, an IF statement is stored as an MetaIfStatement, which is derived from a more general MetaStatement object.

The MetaIfStatement object is built from other objects, such as the IfExpression expression object which represents the condition part of the IF statement, and the ThenPart statement object which represents all the statements to be followed if the expression is true.

With this in mind, the algorithm to collect routing information for a particular variable can be summarised as follows :

- Read the syntactic objects from the metadata files in order - they are retrieved in the same order that they were declared in the RULES sections of the datamodel specification.
- Whenever a condition is found - an IF object - make a note of the condition expression on a push-down stack. When the condition statement falls out of scope - i.e. at the point where the ENDIF keyword would be found in the specification - remove the corresponding condition from the stack.
- Whenever a variable is found record the details along with a record of all the conditions still on the stack, which are therefore still in force at the time this variable appears in the RULES.

To document a variable, dump the expressions or substitution texts of all of the conditions under which it is asked, plus the variable label, variable type, and if applicable the value labels.

The current presentation program allows the user to select: specific blocks to document; which components of the RULES should appear in the document (variables, checks and signals, computations/edits), whether fully-qualified variable names should be used, use of short value labels; an alphabetical index to all variables, an appended structure diagram.

## 3. Concluding notes

Using this tool, a task that used to take a week and was error-prone now takes less than five minutes and is accurate, and it is easy to keep in step with changes to the specification. The document is derived directly from the metadata so it can be used to verify that the requirements of the client have been accurately coded into the datamodel. All relevant information

about each variable is collected together, making it ideal for archiving alongside the data.

This program creates plain text files. Work has been started on another presentation program which creates a source file for the Windows Help system. Once compiled, the resulting help file can be used to explore the structure of a datamodel in a number of different ways, using the Windows Help engine.

Another variant will create a Rich Text Format file suitable for direct import into Microsoft Word. This allows greater control over formatting - for example allowing the use of the bold attribute, or different font sizes.

The documentation tool has been tested by a small number of organisations outside SSD. Future development, and the provision of similar functionality within Blaise by Statistics Netherlands, are matters currently under discussion.

## Appendix - Sample output

Documentation of Questionnaire/Module 'OMN9511'  
Created on 12-01-1997 at 10:30

ask always:

OMN9511.MainMods.M130.m130\_1

THIS MODULE IS FOR THE DEPARTMENT OF HEALTH  
Which of these do you think causes the most premature deaths in  
the UK each year?

SHOW CARD C130.1

(1) roadacc	Road accidents
(2) workacc	Accidents at work
(3) AIDS	AIDS
(4) qlsmoke	Smoking
(5) murder	Murder and manslaughter
(6) drugs	Illicit drugs
(7) alcohol	Alcohol misuse

ask always:

OMN9511.MainMods.M130.m130\_2

Do you smoke cigarettes at all nowadays?

(1) Yes	Yes
(2) No	No

ask if: m130\_2 = Yes

OMN9511.MainMods.M130.m130\_3

How many cigarettes a day do you usually smoke at weekends?

0..200

ask if: m130\_2 = Yes

OMN9511.MainMods.M130.m130\_4

How many cigarettes a day do you usually smoke on weekdays?

0..200

ask if: m130\_2 = Yes

OMN9511.MainMods.M130.m130\_5

Do you mainly smoke filter tipped cigarettes, or plain cigarettes or hand-rolled cigarettes?

- |     |        |               |
|-----|--------|---------------|
| (1) | filter | Filter tipped |
| (2) | plain  | Plain         |
| (3) | hand   | Hand-rolled   |

ask if: NOT (m130\_2 = Yes)

OMN9511.MainMods.M130.m130\_6

Have you ever smoked cigarettes regularly?

- |     |     |     |
|-----|-----|-----|
| (1) | Yes | Yes |
| (2) | No  | No  |

ask if: NOT (m130\_2 = Yes)

and: m130\_6 = Yes

OMN9511.MainMods.M130.m130\_7

About how many cigarettes a day did you smoke when you smoked regularly?

0..200

ask always:

OMN9511.MainMods.M130.m130\_8

Do you smoke at least one cigar of any kind per month nowadays?

- |     |     |     |
|-----|-----|-----|
| (1) | Yes | Yes |
| (2) | No  | No  |

ask if: HHGrid.HH1.Hg[HHGrid.RESP].Sex = Male

OMN9511.MainMods.M130.m130\_9

Do you smoke a pipe at all nowadays?

- |     |     |     |
|-----|-----|-----|
| (1) | Yes | Yes |
| (2) | No  | No  |

ask if: m130\_2 = Yes

OMN9511.MainMods.M130.m130\_10

How soon after waking do you smoke your first cigarette of the day?

- |     |          |                              |
|-----|----------|------------------------------|
| (1) | less5    | Less than 5 minutes          |
| (2) | n5to14   | 5-14 minutes                 |
| (3) | n15to29  | 15-29 minutes                |
| (4) | n30to1hr | 30 mins but less than 1 hour |
| (5) | n1to2hrs | 1 hour but less than 2 hours |
| (6) | n2ormore | 2 hours or more              |

ask if: ((m130\_2 = Yes) OR (m130\_8 = Yes)) OR (m130\_9 = Yes)

OMN9511.MainMods.M130.m130\_11

Would you like to give up smoking?

- |     |     |     |
|-----|-----|-----|
| (1) | Yes | Yes |
| (2) | No  | No  |

ask if: ((m130\_2 = Yes) OR (m130\_8 = Yes)) OR (m130\_9 = Yes)  
and: m130\_11 = Yes

OMN9511.MainMods.M130.m130\_12

How much would you like to give up smoking...

RUNNING PROMPT

- |     |       |                  |
|-----|-------|------------------|
| (1) | litle | a little         |
| (2) | fair  | a fair amount    |
| (3) | qulot | quite a lot      |
| (4) | vmuch | very much indeed |

ask if: ((m130\_2 = Yes) OR (m130\_8 = Yes)) OR (m130\_9 = Yes)  
and: m130\_11 = Yes

OMN9511.MainMods.M130.m130\_13

What are your main reasons for wanting to give up?

SHOW CARD C130.13

SET [3] OF

- |     |        |   |
|-----|--------|---|
| (1) | beter  | better for my health not to smoke       |
| (2) | doctr  | doctor said I should stop               |
| (3) | famly  | family/friends wanted me to stop        |
| (4) | finan  | financial reasons (couldn't afford it)  |
| (5) | preg   | pregnancy                               |
| (6) | worr   | worried about the effect on my children |
| (7) | q13oth | other (specify)                         |

ask if: ((m130\_2 = Yes) OR (m130\_8 = Yes)) OR (m130\_9 = Yes)  
and: m130\_11 = Yes  
and: q13oth IN m130\_13

OMN9511.MainMods.M130.spec13

Please specify other reasons

OPEN

ask if: ((m130\_2 = Yes) OR (m130\_8 = Yes)) OR (m130\_9 = Yes)  
and: m130\_11 = Yes

OMN9511.MainMods.M130.m130\_14

If you tried to give up in, say, the next three months, how likely do you think you would be to succeed?

SHOW CARD C130.14

- |     |         |                 |
|-----|---------|-----------------|
| (1) | vlike   | Very likely     |
| (2) | flike   | Fairly likely   |
| (3) | funlike | Fairly unlikely |
| (4) | vunlike | Very unlikely   |
| (5) | q14nsur | Not sure        |

ask if: ((m130\_2 = Yes) OR (m130\_8 = Yes)) OR (m130\_9 = Yes)

OMN9511.MainMods.M130.m130\_15

Have you made a serious attempt to give up smoking in the last five years, that is since ^DAT.THISMTH ^DAT.YEAR5?

- |     |     |     |
|-----|-----|-----|
| (1) | Yes | Yes |
| (2) | No  | No  |

ask if: ((m130\_2 = Yes) OR (m130\_8 = Yes)) OR (m130\_9 = Yes)  
and: m130\_15 = Yes

OMN9511.MainMods.M130.M130\_16

How many times have you tried to stop (in the last 5 years)?

0..10

ask if: ((m130\_2 = Yes) OR (m130\_8 = Yes)) OR (m130\_9 = Yes)  
and: m130\_15 = Yes

OMN9511.MainMods.M130.M130\_17

What is the longest period you've managed to give up for (in the last five years)?

- |     |         |                               |
|-----|---------|-------------------------------|
| (1) | fdays   | A few days - less than a week |
| (2) | aweeek  | About a week                  |
| (3) | n2to3wk | About two or three weeks      |
| (4) | amth    | About a month                 |
| (5) | mmth    | More than a month             |

ask if: ((m130\_2 = Yes) OR (m130\_8 = Yes)) OR (m130\_9 = Yes)  
and: m130\_15 = Yes  
and: M130\_17 = mmth

OMN9511.MainMods.M130.SPEC17

Please specify the number of months or years

STRING[20]

ask if: m130\_6 = Yes

OMN9511.MainMods.M130.m130\_18

How long ago is it since you stopped smoking cigarettes?

PLEASE RECORD WHETHER YEARS MONTHS OR WEEKS AGO AND ACTUALLY  
HOW LONG AT NEXT QUESTION  
IF LESS THAN A WEEK RECORD AS ZERO WEEKS

- |     |        |        |
|-----|--------|--------|
| (1) | yeers  | years  |
| (2) | munths | months |
| (3) | weaks  | weeks  |

ask if: m130\_6 = Yes

OMN9511.MainMods.M130.INT18

How many ^M130\_18 ago was this  
ASK OR CODE THE NUMBER HERE

1..99

ask if: m130\_6 = Yes

OMN9511.MainMods.M130.m130\_19

Was that your first serious attempt at stopping, or had you  
tried to give up smoking cigarettes before then?

- |     |       |               |
|-----|-------|---------------|
| (1) | first | First attempt |
| (2) | tbe4  | Tried before  |

ask if: m130\_6 = Yes

OMN9511.MainMods.M130.m130\_20

On the whole, did you find it easy or difficult to give up  
smoking cigarettes? Was it...

RUNNING PROMPT

- |     |         |                         |
|-----|---------|-------------------------|
| (1) | veasy   | Very easy               |
| (2) | feasy   | Fairly easy             |
| (3) | fdiff   | Fairly difficult        |
| (4) | vdiff   | Very difficult          |
| (5) | q20nsur | Not sure/can't remember |

ask if: m130\_6 = Yes

OMN9511.MainMods.M130.m130\_21

What were your main reasons for wanting to give up smoking cigarettes?

SHOW CARD C130.13

SET [3] OF

- |     |        |   |
|-----|--------|---|
| (1) | beter  | better for my health not to smoke       |
| (2) | doctr  | doctor said I should stop               |
| (3) | famly  | family/friends wanted me to stop        |
| (4) | finan  | financial reasons (couldn't afford it)  |
| (5) | preg   | pregnancy                               |
| (6) | worr   | worried about the effect on my children |
| (7) | q13oth | other (specify)                         |

ask if: m130\_6 = Yes

and: q13oth IN m130\_21

OMN9511.MainMods.M130.spec21

Please specify other reasons

OPEN

ask if: (m130\_2 = Yes) OR ((m130\_6 = Yes) AND (QUITAGO < 5))

OMN9511.MainMods.M130.m130\_22a

In the last 5 years, have you been given advice on smoking by your GP?

- |     |     |     |
|-----|-----|-----|
| (1) | Yes | Yes |
| (2) | No  | No  |

ask if: (m130\_2 = Yes) OR ((m130\_6 = Yes) AND (QUITAGO < 5))

OMN9511.MainMods.M130.m130\_22b

(In the last 5 years, have you been given advice on smoking by someone else who works at the surgery or health centre?)

- |     |     |     |
|-----|-----|-----|
| (1) | Yes | Yes |
| (2) | No  | No  |

ask if: (m130\_2 = Yes) OR ((m130\_6 = Yes) AND (QUITAGO < 5))

OMN9511.MainMods.M130.m130\_22c

(In the last 5 years, have you been given advice on smoking by a pharmacist?)

- |     |     |     |
|-----|-----|-----|
| (1) | Yes | Yes |
| (2) | No  | No  |

ask if: (m130\_2 = Yes) OR ((m130\_6 = Yes) AND (QUITAGO < 5))

OMN9511.MainMods.M130.m130\_22d

(In the last 5 years, have you been given advice on smoking by)  
any other medical person?

(1)	Yes	Yes
(2)	No	No

ask if: (m130\_2 = Yes) OR ((m130\_6 = Yes) AND (QUITAGO < 5))  
and: m130\_22d = Yes

OMN9511.MainMods.M130.SPEC22d

Please specify who the other medical person was

OPEN

ask if: (m130\_2 = Yes) OR ((m130\_6 = Yes) AND (QUITAGO < 5))

OMN9511.MainMods.M130.M130\_23

(On any of these occasions) Did you have a discussion about  
giving up smoking, or were you just given something to take  
away and read?

IF BOTH CODE 1 FOR DISCUSSION

(1)	discus	discussion
(2)	liter	literature only

ask if: (m130\_2 = Yes) OR ((m130\_6 = Yes) AND (QUITAGO < 5))

OMN9511.MainMods.M130.m130\_24

Did you find the advice helpful?

(1)	Yes	Yes
(2)	No	No

ask if: HHGrid.HH1.Hg[HHGrid.RESP].Marstat IN [Marr, Cohabit,  
SameGen]

OMN9511.MainMods.M130.M130\_25

Does your partner smoke?

(1)	Yes	Yes
(2)	No	No

ask if: HHGrid.HH1.Hg[HHGrid.RESP].Marstat IN [Marr, Cohabit,  
SameGen]

and: M130\_25 = Yes

OMN9511.MainMods.M130.M130\_26

How do you feel about your partner smoking?

SHOW CARD C130.26

- |     |         |  |
|-----|---------|--|
| (1) | astrong | Approves strongly                                |
| (2) | approv  | Approves   |
| (3) | napprov | Neither approves nor<br>disapproves/doesn't mind |
| (4) | dapprov | Disapproves                                      |
| (5) | dstrong | Disapproves strongly                             |

ask if: HHGrid.HH1.Hg[HHGrid.RESP].Marstat IN [Marr, Cohabit,  
SameGen]

and: ((m130\_2 = Yes) OR (m130\_8 = Yes)) OR (m130\_9 = Yes)

OMN9511.MainMods.M130.m130\_27

How does your partner feel about you smoking?

SHOW CARD C130.26

- |     |         |  |
|-----|---------|--|
| (1) | astrong | Approves strongly                                |
| (2) | approv  | Approves   |
| (3) | napprov | Neither approves nor<br>disapproves/doesn't mind |
| (4) | dapprov | Disapproves                                      |
| (5) | dstrong | Disapproves strongly                             |

ask always:

OMN9511.MainMods.M130.m130\_28a

Do you think the government should or should not allow tobacco  
advertising...  
on boardings and posters?

- |     |        |                  |
|-----|--------|------------------|
| (1) | sallow | should allow     |
| (2) | nallow | should not allow |

ask always:

OMN9511.MainMods.M130.m130\_28b

(Do you think the government should or should not allow tobacco  
advertising...)  
in places where cigarettes are sold?

- |     |        |                  |
|-----|--------|------------------|
| (1) | sallow | should allow     |
| (2) | nallow | should not allow |

ask always:

OMN9511.MainMods.M130.m130\_28c

(Do you think the government should or should not allow tobacco advertising...)  
in newspapers and magazines?

- |     |        |                  |
|-----|--------|------------------|
| (1) | sallow | should allow     |
| (2) | nallow | should not allow |

ask always:

OMN9511.MainMods.M130.m130\_28d

(Do you think the government should or should not allow tobacco advertising...)  
of any kind at all?

- |     |        |                  |
|-----|--------|------------------|
| (1) | sallow | should allow     |
| (2) | nallow | should not allow |

ask always:

OMN9511.MainMods.M130.m130\_29a

How do you feel about tobacco companies being given publicity in return for sponsoring or supporting...  
sports events?

SHOW CARD C130.26

- |     |         |   |
|-----|---------|---|
| (1) | astrong | Approves strongly                             |
| (2) | approv  | Approves                                      |
| (3) | napprov | Neither approves nor disapproves/doesn't mind |
| (4) | dapprov | Disapproves                                   |
| (5) | dstrong | Disapproves strongly                          |

ask always:

OMN9511.MainMods.M130.M130\_29b

(How do you feel about tobacco companies being given publicity in return for sponsoring or supporting...)  
events such as pop concerts?

SHOW CARD C130.26

- |     |         |   |
|-----|---------|---|
| (1) | astrong | Approves strongly                             |
| (2) | approv  | Approves                                      |
| (3) | napprov | Neither approves nor disapproves/doesn't mind |
| (4) | dapprov | Disapproves                                   |
| (5) | dstrong | Disapproves strongly                          |

ask always:

OMN9511.MainMods.M130.M130\_29c

(How do you feel about tobacco companies being given publicity in return for sponsoring or supporting...)  
opera or other arts events?

SHOW CARD C130.26

- |     |         |   |
|-----|---------|---|
| (1) | astrong | Approves strongly                             |
| (2) | approv  | Approves                                      |
| (3) | napprov | Neither approves nor disapproves/doesn't mind |
| (4) | dapprov | Disapproves                                   |
| (5) | dstrong | Disapproves strongly                          |

ask always:

OMN9511.MainMods.M130.m130\_30

How strongly would you approve or disapprove if the government increased the tax on cigarettes?

SHOW CARD C130.26

- |     |         |   |
|-----|---------|---|
| (1) | astrong | Approves strongly                             |
| (2) | approv  | Approves                                      |
| (3) | napprov | Neither approves nor disapproves/doesn't mind |
| (4) | dapprov | Disapproves                                   |
| (5) | dstrong | Disapproves strongly                          |

ask always:

OMN9511.MainMods.M130.M130\_31

Do you think the government should increase the tax on cigarettes...

RUNNING PROMPT  
CODE ONE ONLY

- |     |        |                                      |
|-----|--------|--------------------------------------|
| (1) | mmore  | much more than the rate of inflation |
| (2) | jabove | just above the rate of inflation     |
| (3) | inline | only in line with inflation          |
| (4) | natat  | not at all                           |

ask always:

OMN9511.MainMods.M130.M130\_32A

Do you think that living with someone who smokes does, or does not, increase a child's risk of...  
asthma

- |     |         |                        |
|-----|---------|------------------------|
| (1) | increes | increases risk         |
| (2) | notinc  | does not increase risk |

ask always:

OMN9511.MainMods.M130.M130\_32b

(Do you think that living with someone who smokes does, or does not, increase a child's risk of...)  
glue ear?

- |     |         |                        |
|-----|---------|------------------------|
| (1) | increes | increases risk         |
| (2) | notinc  | does not increase risk |

ask always:

OMN9511.MainMods.M130.M130\_32c

(Do you think that living with someone who smokes does, or does not, increase a child's risk of...)  
diabetes?

- |     |         |                        |
|-----|---------|------------------------|
| (1) | increes | increases risk         |
| (2) | notinc  | does not increase risk |

ask always:

OMN9511.MainMods.M130.M130\_32d

(Do you think that living with someone who smokes does, or does not, increase a child's risk of...)  
cot death?

- |     |         |                        |
|-----|---------|------------------------|
| (1) | increes | increases risk         |
| (2) | notinc  | does not increase risk |

ask always:

OMN9511.MainMods.M130.M130\_32e

(Do you think that living with someone who smokes does, or does not, increase a child's risk of...)  
chest infections?

- |     |         |                        |
|-----|---------|------------------------|
| (1) | increes | increases risk         |
| (2) | notinc  | does not increase risk |

ask always:

OMN9511.MainMods.M130.M130\_32f

(Do you think that living with someone who smokes does, or does not, increase a child's risk of...)  
other infections?

- |     |         |                        |
|-----|---------|------------------------|
| (1) | increes | increases risk         |
| (2) | notinc  | does not increase risk |

ask always:

OMN9511.MainMods.M130.m130\_33a

Do you think that breathing someone else's smoke increases the risk of a non-smoker getting... asthma?

- (1) increes            increases risk
- (2) notinc            does not increase risk

ask always:

OMN9511.MainMods.M130.m130\_33b

(Do you think that breathing someone else's smoke increases the risk of a non-smoker getting...) lung cancer?

- (1) increes            increases risk
- (2) notinc            does not increase risk

ask always:

OMN9511.MainMods.M130.m130\_33c

(Do you think that breathing someone else's smoke increases the risk of a non-smoker getting...) diabetes?

- (1) increes            increases risk
- (2) notinc            does not increase risk

ask always:

OMN9511.MainMods.M130.m130\_33d

(Do you think that breathing someone else's smoke increases the risk of a non-smoker getting...) heart disease?

- (1) increes            increases risk
- (2) notinc            does not increase risk

ask always:

OMN9511.MainMods.M130.m130\_33e

(Do you think that breathing someone else's smoke increases the risk of a non-smoker getting...) bronchitis?

- (1) increes            increases risk
- (2) notinc            does not increase risk

ask always:

OMN9511.MainMods.M130.m130\_33f

(Do you think that breathing someone else's smoke increases the risk of a non-smoker getting...)  
coughs and colds?

- |     |         |                        |
|-----|---------|------------------------|
| (1) | increes | increases risk         |
| (2) | notinc  | does not increase risk |

ask always:

OMN9511.MainMods.M130.m130\_34a

How far do you agree or disagree that there should be restrictions on smoking...  
at work?

SHOW CARD C130.34

- |     |          |  |
|-----|----------|--|
| (1) | agstrong | agrees strongly                              |
| (2) | agree    | agrees                                       |
| (3) | nagree   | Neither agrees nor<br>disagrees/doesn't mind |
| (4) | dagree   | Disagrees                                    |
| (5) | dgstrong | Disagrees strongly                           |

ask always:

OMN9511.MainMods.M130.m130\_34b

(How far do you agree or disagree that there should be restrictions on smoking...)  
in restaurants?

SHOW CARD C130.34

- |     |          |  |
|-----|----------|--|
| (1) | agstrong | agrees strongly                              |
| (2) | agree    | agrees                                       |
| (3) | nagree   | Neither agrees nor<br>disagrees/doesn't mind |
| (4) | dagree   | Disagrees                                    |
| (5) | dgstrong | Disagrees strongly                           |

ask always:

OMN9511.MainMods.M130.m130\_34c

(How far do you agree or disagree that there should be restrictions on smoking...)  
in pubs?

SHOW CARD C130.34

- |     |          |  |
|-----|----------|--|
| (1) | agstrong | agrees strongly                              |
| (2) | agree    | agrees                                       |
| (3) | nagree   | Neither agrees nor<br>disagrees/doesn't mind |
| (4) | dagree   | Disagrees                                    |
| (5) | dgstrong | Disagrees strongly                           |

ask always:

OMN9511.MainMods.M130.m130\_34d

(How far do you agree or disagree that there should be restrictions on smoking...)  
in public places such as banks and post offices?

SHOW CARD C130.34

- |     |          |   |
|-----|----------|---|
| (1) | agstrong | agrees strongly                           |
| (2) | agree    | agrees                                    |
| (3) | nagree   | Neither agrees nor disagrees/doesn't mind |
| (4) | dagree   | Disagrees                                 |
| (5) | dgstrong | Disagrees strongly                        |

ask if: (M1.PaidWork = Yes) OR (M1.Away = Yes)

OMN9511.MainMods.M130.M130\_35

What sort of restrictions are there on smoking where you work?

SHOW CARD C130.35

- |     |        |  |
|-----|--------|--|
| (1) | nosmok | No smoking at all on the premises                |
| (2) | smok   | Smoking only allowed in designated smoking rooms |
| (3) | norest | No restrictions at all.                          |
| (4) | dwork  | Don't work in a building with other people       |