

Data entry form development

Epi-Data program

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Linkage between questionnaire and data form

Rec.no.	id	q1	q2	q3	q4	q51	q52	q53	q101	q102	q103	q104	q105	q106
3	196	1	17/12/2012	soun sotheary	5			KTM10	1	30	2	2	1	1
4	197	1	17/12/2012	rasmy	5			KTM10	1	45	2	2	1	1
5	198	1	16/12/2012		5			KTM10	2	46	1	2	1	1

EpiData 3.1 - [Entry1final_append.rec]

File Goto Filter Window Help

Variable	Label of Variable	Field Type/format of Variable	Field of Variable
id	Id of participants	Number(Numeric)	196
q1	Respondent	Number(Code)	1
q2	Date of interview	Date	17/12/2012
q3	Interviewer's name	Text	soun sotheary
q4	City/Province	Number(Code)	5
q51	Interview Location District	Text	
q52	Interview Location Village	Text	
q53	Interview Location Link to road (code)	Text	KTM10
q101	Sex of respondent	Number(Code)	1
q102	How old are you?	Number(Numeric)	30
q103	How you relate to Head of household?	Number(Code)	2
q104	Sex head of household	Number(Code)	2
q105	What is your HHs main occupation?	Number(Code)	1
q106	Does your current house and land belongto you?	Number(Code)	1

Working Variable Names

- Meaningful and recognizable because Not Only you use that data
- Maximum: 10 characters
- Begin with a letter (not a number)
- No punctuation/spaces
- 2 options for generating field names
 - Automatic field names
 - First word of the question as a field name

Different Variable Format

Variables format		Entry fields
Text	All characters accepted (free text)	-----
	All characters are upper-case	<A >
Numeric	Number without decimal point	###
	Number with decimal point	##.#
Date	European style date	<dd/mm/yyyy>
	American style date	<mm/dd/yyyy>
	Today's date	<today-dmy> <today-mdy>

Data entry form
in
Epi-data program

Why do we need Epi-Data as a Data Entry Tool?

Questionnaire

Paper based

Phonon Poth

Support Group Screening Questionnaire

Drug Use Educator: Sek K. Heang Interview Date: 09/12/2008 DIC Code: 641

Suggested greeting: Hi my name is (your name) and I am a drug use educator. I am from _____
I would like to ask you some questions about alcohol and other drug use. (Optional: "Has anyone else asked this of you before?" If NOT, then CONTINUE.) This short questionnaire will take a few minutes and we will not share your answers with anyone. Do you agree to talk with me? (If "YES", ask the following questions and fill in the blanks or check the boxes.)

1. How old are you? 19 (age)

2. Do you drink alcohol now? ☒ Yes ☐ No

3. How old were you when you first tried alcohol? 16 (age)

4. Have you ever tried any other drugs in the past? ☐ Yes (CONTINUE) ☐ No (STOP)
(Check each below that has been tried- can check more than one)
☒ Yama/Yaba ☐ Ice ☐ Heroin ☐ Marijuana ☐ Ecstasy ☐ Ketamine ☐ Other...

5. How old were you when you used the drugs for the first time? 16 (age)

6. How did you use the drugs? ☐ Swallow ☒ Smoke ☐ Snort ☐ Inhale ☐ Inject
(If "Inject" is checked ask) If we offer clean needles and syringes at this club, do you think you or others would take them? ☐ Yes ☐ No

7. Who did you usually get the drugs from? (More than one answer can be checked)
☒ seller ☐ friends ☐ partner ☐ family ☐ customer ☐ establishment owner

8. Have you ever used illegal drugs before having sex? ☒ Yes ☐ No

9. Have you ever sold sex to get money to buy drugs? ☐ Yes ☐ No

10. Have you ever felt bad or guilty about using drugs? ☐ Yes ☐ No

11. Have you lost relationships with family, partners, or friends due drug use? ☐ Yes ☐ No

12. Have you ever been in trouble at school or work due to drug use? ☐ Yes ☐ No

13. Do you think you spend too much money on drugs? ☐ Yes ☐ No

14. Have you ever gone to anyone for help for drug use problems? ☐ Yes ☐ No

15. Are you using any drugs currently? ☐ Yes ☐ No

If answer is "Yes" in any box above then ask:
Would you like to be called about our upcoming drug use support group? ☒ Yes ☐ No

If "Yes", ask for phone number and write in back of book.

Data entry form

Epi-Data software

Epi-Data 3.1 - (drugstudynewfinal.rec)

File Goto Filter Window Help

id	Id of Participants	641
sex	Sex of Participants	1
Note: See sex code below.		
1-Male 2-Female		
due	Drug use educator	5
Note: See code of drug use educator below.		
1- Born Bachmans 6- Neak Chansopheap		
2- Leng Sokunthea 7- Lim Leang		
3- Heang Line 8- The Socheat		
4- Soon Chanty 9- Tan Chivy		
5- Sok Heang 10- Maredy		
date	Date of interview	09/12/2008
q1	How old are you?	19 years
q2	Do you drink alcohol now?	1
q3	How old were you when you first tried alcohol?	16 years
q4	Have you ever tried other drugs in the past?	1
q41	Have you ever tried Yama/Yaba?	1
q42	Have you ever tried Ice?	1
q43	Have you ever tried Heroin?	2
q44	Have you ever tried Marijuana?	2
q45	Have you ever tried Ecstasy?	2
q46	Have you ever tried Ketamine?	2
q47	Have you ever tried other drug?	2
q5	How old were you when used drug first time?	16 years

836/936

Data analysis

STATA software

Stata/IC 12.0 - D:\Business\VR\Book development\drugstudy\drugstudynewfinal_correct.dta

File Edit Data Graphics Statistics User Window Help

Review

#	Command	_rc
1	use "D:\Business\VR\Book development\drugstudy\d...	
2	tab q2	

Variables

Variable	Label
entry	Date of data entry
prov	Provincial code
id	Id of Participants
sex	Sex of Participants
due	Drug use educator
date	Date of interview
q1	How old are you?
q2	Do you drink alcohol now?
q3	How old were you when you first tried alcohol?
q4	Have you ever tried other drugs in the past?
q41	Have you ever tried Yama/Yaba?
q42	Have you ever tried Ice?
q43	Have you ever tried Heroin?
q44	Have you ever tried Marijuana?
q45	Have you ever tried Ecstasy?
q46	Have you ever tried Ketamine?
q47	Have you ever tried other drug?
q5	How old were you when used drug first time?
q61	Did you use drugs by Swallow?
q62	Did you use drugs by Smoke?
q63	Did you use drugs by Snort?
q64	Did you use drugs by Inhale?
q65	Did you use drugs by Inject?
q651	If offering clean needle, will injectors take?
q71	Did you usually get the drugs from the seller?

Single-u
s

Notes:

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(drugstu

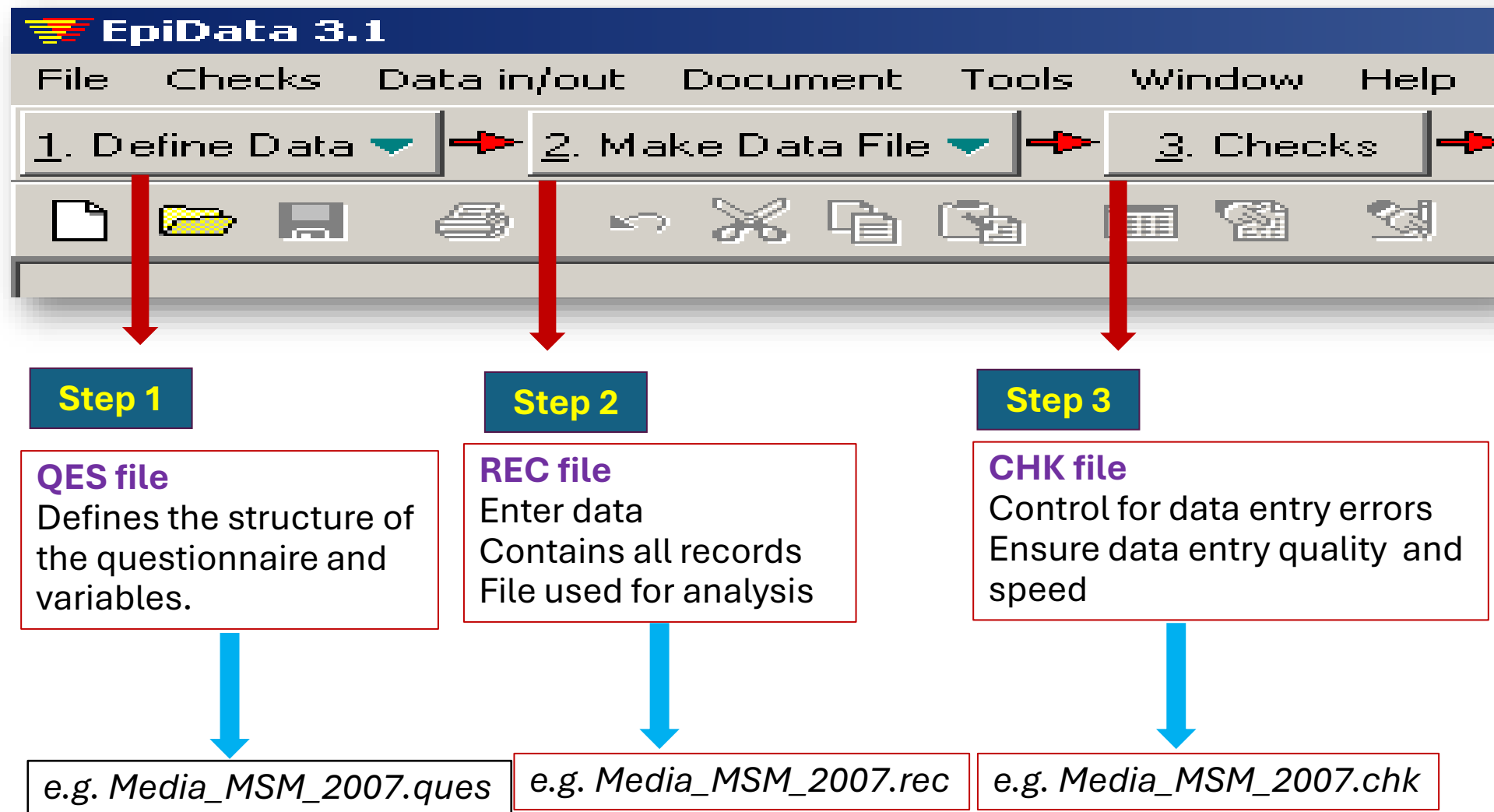
. tab q2

Do
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Tc

Command

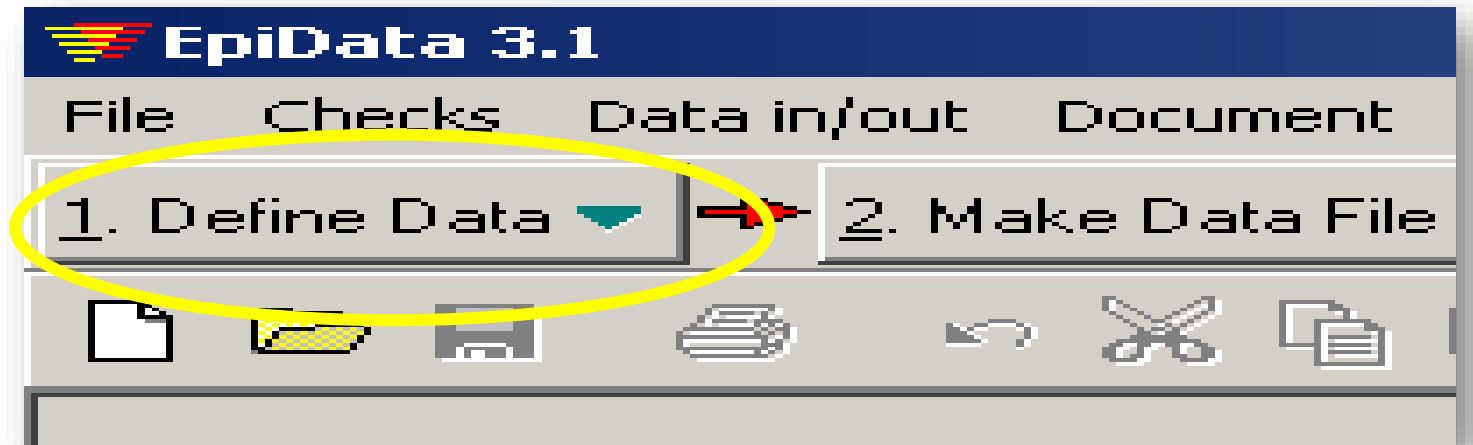
Data entry form development: 3 main file types



Creating Quest file

Main processes of creating a QES file

1. Click on first option, called “Define Data”
2. Select on option “New. QES file”, then
3. Typing all questions: variable names, variable labels, and entry field with specific format..etc
4. Save QES file in directory of a specific project



Support Group Screening Questionnaire

Phnom Penh

Suggested greeting: Hi my name is (your name) and I am a drug use educator. I am from _____. I would like to ask you some questions about alcohol and other drug use. (Optional: "Has anyone else asked this of you before?" If NOT, then **CONTINUE**.) This short questionnaire will take a few minutes and we will not share your answers with anyone. Do you agree to talk with me? (If "YES", ask the following questions and fill in the blank.)

Questionnaire

- Questionnaire**
- How old are you? 19 (age)
 - Do you drink alcohol? ☒ Yes ☐ No
 - How old were you when you first tried alcohol? 16 (age)
 - Have you ever tried any other drugs in the past? ☒ Yes (CONTINUE) ☐ No (STOP)
(Check each below that has been tried- can check more than one)
☒ Yams/yaba ☒ Ice ☐ Heroin ☐ Marijuana ☐ Ecstasy ☐ Ketamine ☐ Other...
 - How old were you when you used the drugs for the first time? 16 (age)
 - How did you use the drugs? ☐ Swallow ☒ Smoke ☐ Snort ☐ Inhale ☐ Inject
(If "Inject" is checked ask) If we offer clean needles and syringes at this club, do you think you or others would take them? ☐ Yes ☐ No
 - Who did you usually get the drugs from? (More than one answer can be checked)
☒ seller ☒ friends ☐ partner ☐ family ☐ customer ☐ establishment owner
 - Have you ever used illegal drugs before having sex? ☒ Yes ☐ No
 - Have you ever sold sex to get money to buy drugs? ☒ Yes ☐ No
 - Have you ever felt bad or guilty about using drugs? ☒ Yes ☐ No
 - Have you lost relationships with family, partners, or friends due drug use? ☒ Yes ☐ No
 - Have you ever been in trouble at school or work due to drug use? ☐ Yes ☐ No
 - Do you think you spend too much money on drugs? ☒ Yes ☐ No
 - Have you ever gone to anyone for help for drug use problems? ☒ Yes ☐ No
 - Are you using any drugs currently? ☒ Yes ☐ No

If answer is "Yes" to any in box above then ask:

Would you like to be called about our upcoming drug use support group?

If "Yes", ask for phone number and write in back of book.

The screenshot displays the Quest software interface. At the top is a menu bar with options: File, Edit, Data, Document, Tools, Window, and Help. Below the menu bar is a toolbar with icons for file operations (open, save, print, etc.). The main window shows a questionnaire file named 'drugstudy.qes'. The questionnaire content is displayed in a text editor format, with questions listed on the left and their corresponding Quest code on the right. A large red watermark 'Quest Window' is overlaid on the center of the screen. The questions include demographic information (entry, prov, id, sex, due), date of interview, and a series of questions about drug use (Q1-Q151). The Quest code on the right includes labels like '<today-dmy>', '####', '## years', and '##'.

Question ID	Question Text	Quest Code
entry	Date of data entry	<today-dmy>
Prov	Provincial code	#
id	Id of Participants	####
sex	Sex of Participants	#
DUE	Drug use educator	##
Date	Date of interview	day/month/year <dd/mm/yyyy>
Q1	How old are you?	## years
Q2	Do you drink alcohol now?	#
Q3	How old were you when you first tried alcohol?	## years
Q4	Have you ever tried other drugs in the past?	#
Q41	Have you ever tried Yama/Yaba?	#
Q42	Have you ever tried Ice?	#
Q43	Have you ever tried Heroin?	#
Q44	Have you ever tried Marijuana?	#
Q45	Have you ever tried Ecstasy?	#
Q46	Have you ever tried Ketamine?	#
Q47	Have you ever tried other drug?	#
Q5	How old were you when used drug first time?	## years
Q61	Did you use drugs by Swallow?	#
Q62	Did you use drugs by Smoke?	#
Q63	Did you use drugs by Snort?	#
Q64	Did you use drugs by Inhale?	#
Q65	Did you use drugs by Inject?	#
Q651	If offering clean needle, will injectors take?	#
Q71	Did you usually get the drugs from the seller?	#
Q72	Did you usually get the drugs from friends?	#
Q73	Did you usually get the drugs from partner?	#
Q74	Did you usually get the drugs from family?	#
Q75	Did you usually get the drugs from customer?	#
Q76	Did you usually get the drugs from establishment owner?	#
Q8	Have you ever use illegal drug before having sex?	#
Q9	Have you ever sold sex for buying drug?	#
Q10	Have you ever felt bad or guilty about using drug?	#
Q11	Have you ever lost relationship...drug?	#
Q12	Have you ever been trouble at school...drug?	#
Q13	Do you think you spend too much money on drug?	#
Q14	Have you gone to anyone for help for drug problem?	#
Q15	Are you using any drugs currently?	#
Q151	Would you like to be called...support group?	#

Window Editor and Data Entry Form

File Edit Data File Document Tools Window Help

1. Define Data ▼ → 2. Make Data File ▼ → 3. Checks → 4. Enter Data → 5. Document ▼ →

entry Date of data entry <today-dmy>
Prov Provincial code #
id Id of Participants ####
sex Sex of Participants #
DUE Drug use educator ##
Date Date of interview day/month/year
Q1 How old are you? ## years
Q2 Do you drink alcohol now? #
Q3 How old were you when you first tried alcohol? ## years
Q4 Have you ever tried other drugs in the past? #
Q41 Have you ever tried Yama/Yaba? #
Q42 Have you ever tried Ice? #
Q43 Have you ever tried Heroin? #
Q44 Have you ever tried Marijuana? #
Q45 Have you ever tried Ecstasy? #
Q46 Have you ever tried Ketamine? #
Q47 Have you ever tried other drug? #
Q5 How old were you when used drug first time? ## years

Quest Window

EpiData 3.1 - [DRUG.rec]

File Goto Filter Window Help

entry Date of data entry 06/09/2025
prov Provincial code
id Id of Participants
sex Sex of Participants
due Drug use educator
date Date of interview
q1 How old are you? years
q2 Do you drink alcohol now?
q3 How old were you when you first tried alcohol? years
q4 Have you ever tried other drugs in the past?
q41 Have you ever tried Yama/Yaba?
q42 Have you ever tried Ice?
q43 Have you ever tried Heroin?
q44 Have you ever tried Marijuana?
q45 Have you ever tried Ecstasy?
q46 Have you ever tried Ketamine?
q47 Have you ever tried other drug?
q5 How old were you when used drug first time? years

Data form

Creating check file

Why is check file required?

- Maintaining data validity
- Minimizing human errors during data entry
 - Enter same form twice, triple or multiple times
 - Gender (1=male, 2=female): enter value 0 or 3??
 - Missing data
- Shortening time for data entry

The screenshot shows the EpiData 3.1 interface with a data entry form and a warning dialog. The form has fields for 'entry', 'prov', 'id', 'sex', 'due', 'date', 'q1', 'q2', 'q3', and 'q4'. The 'id' field contains the value '525'. A warning dialog box is open, displaying a yellow warning icon and the text: 'Duplicate key in id Value already entered in record #46 Goto record #46?'. The dialog has 'Yes' and 'No' buttons.

Field	Value
entry	
prov	
id	525
sex	
due	
date	
q1	
q2	
q3	
q4	

Warning

Duplicate key in id
Value already entered in record #46
Goto record #46?

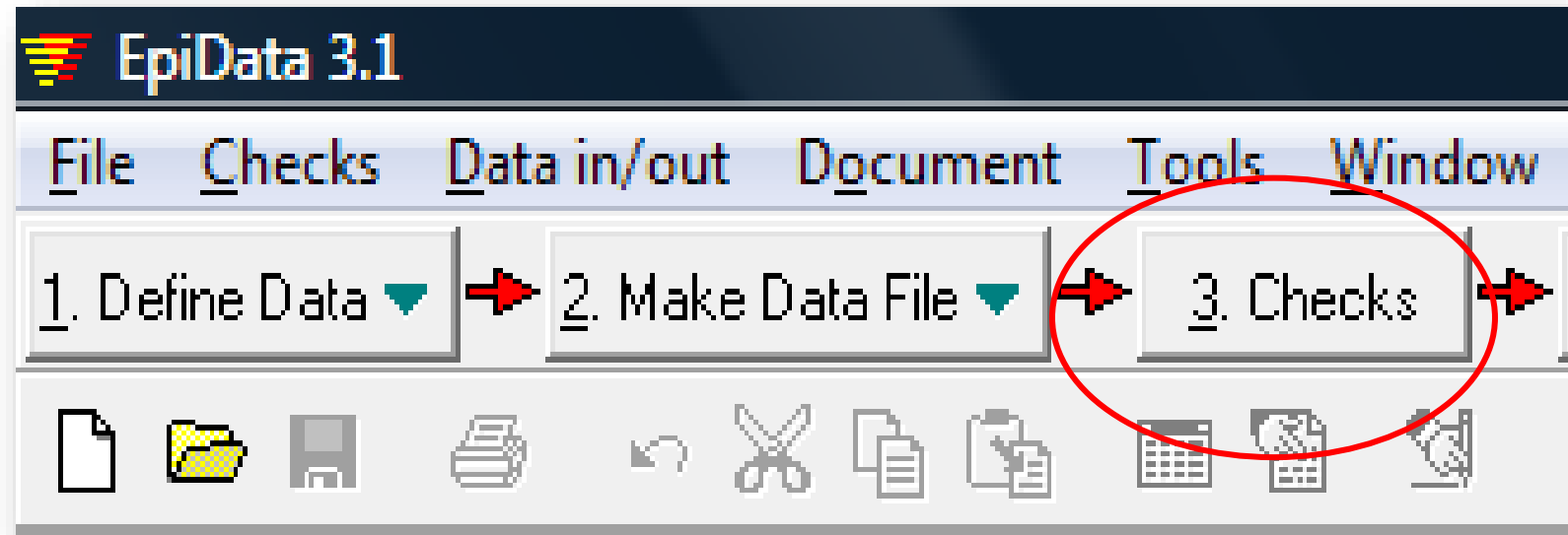
Yes No

Common practice

- Before data entry: CHK file
- Checks validity of data during data entry process
 - Specifying a value range to be used in a field (e.g. 1-3,9)
 - Making data entry mandatory for a field
 - Adding jumps/hide
 - Adding calculations
 - And more!

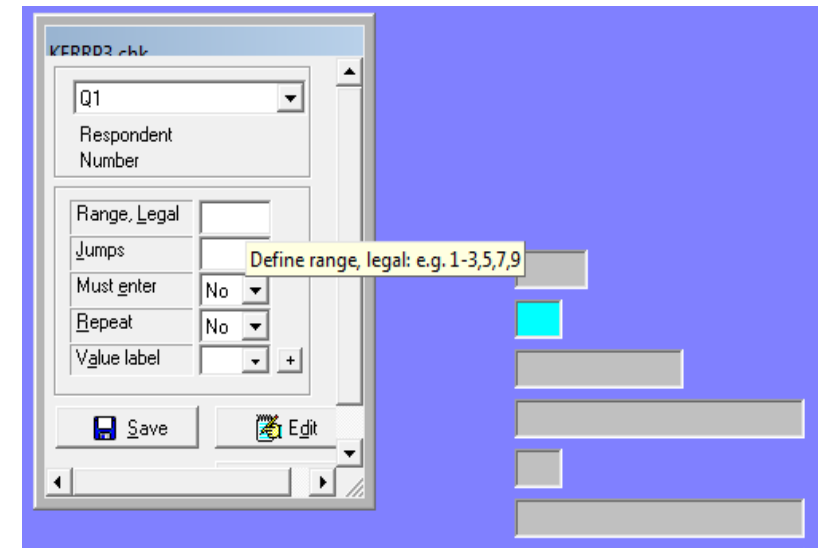
Creating a CHK file

- Using third option “Checks” for creating check file.
- Select any variable for setting the rule, e.g. set legal code for entry in range, 1-2, for Q502.
That means, only number 1 and 2 can be entered in this data field (see Figure8), then
- Click on “save” on check window to save all rules that have been set.



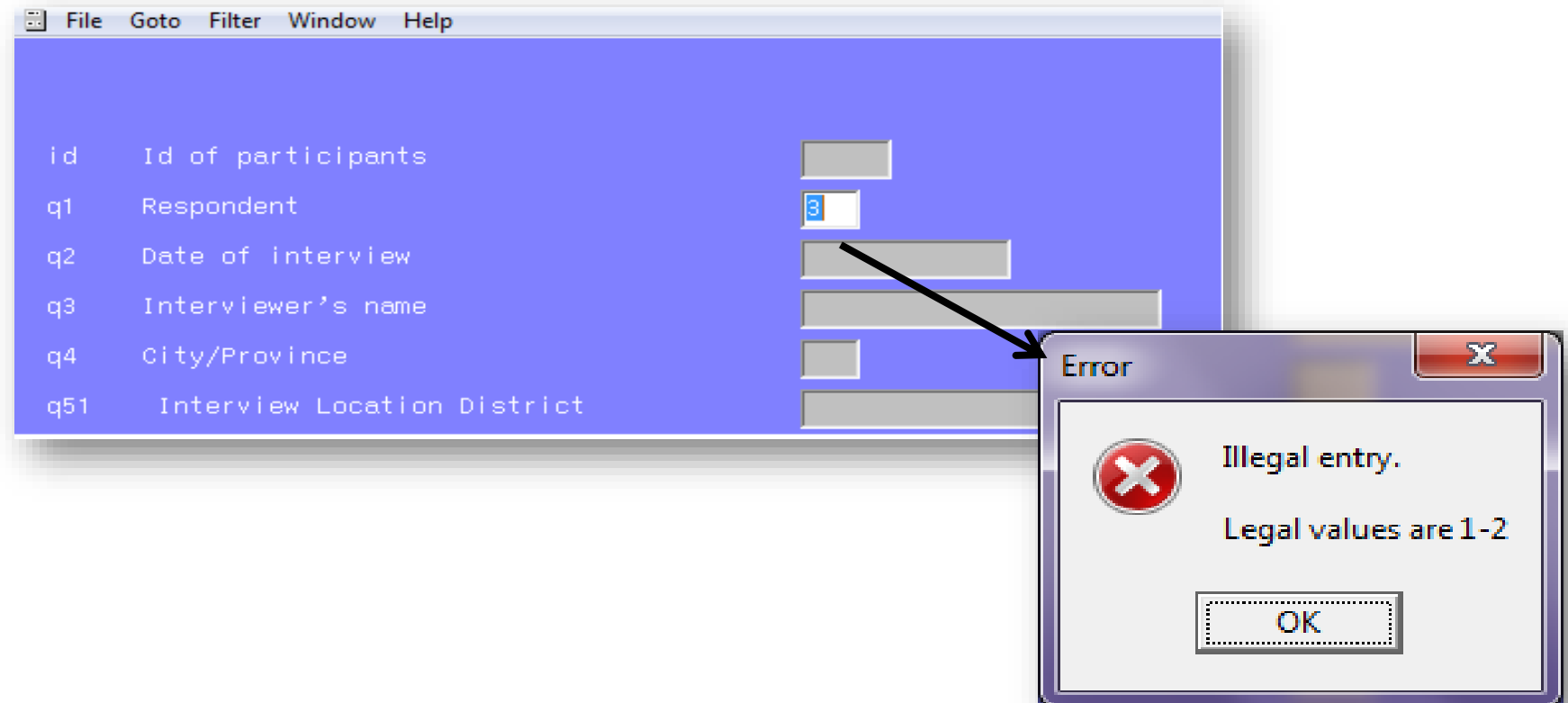
Range and legal code

- Range separated by hyphen
- Legal values separated by comma

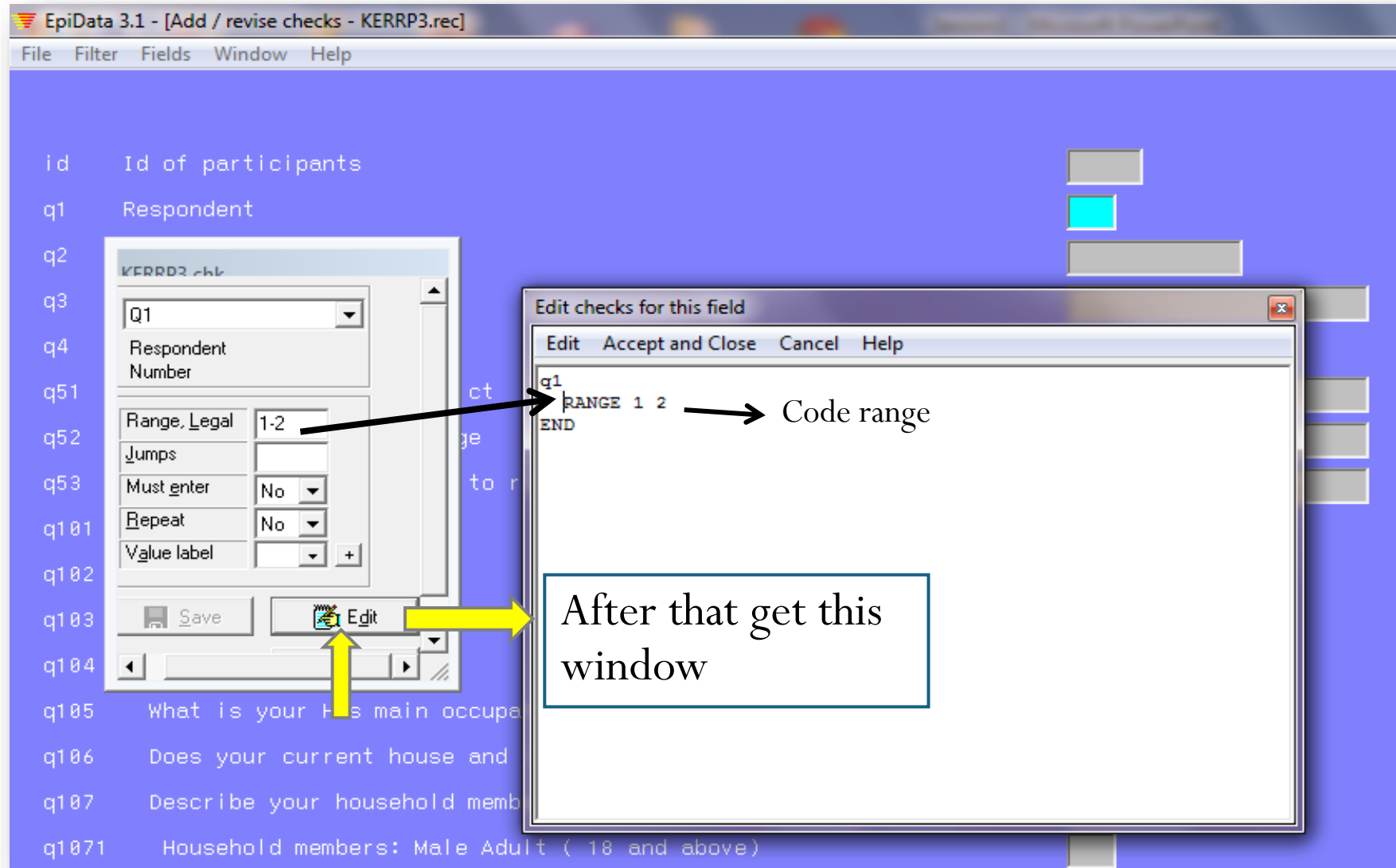


Typing error

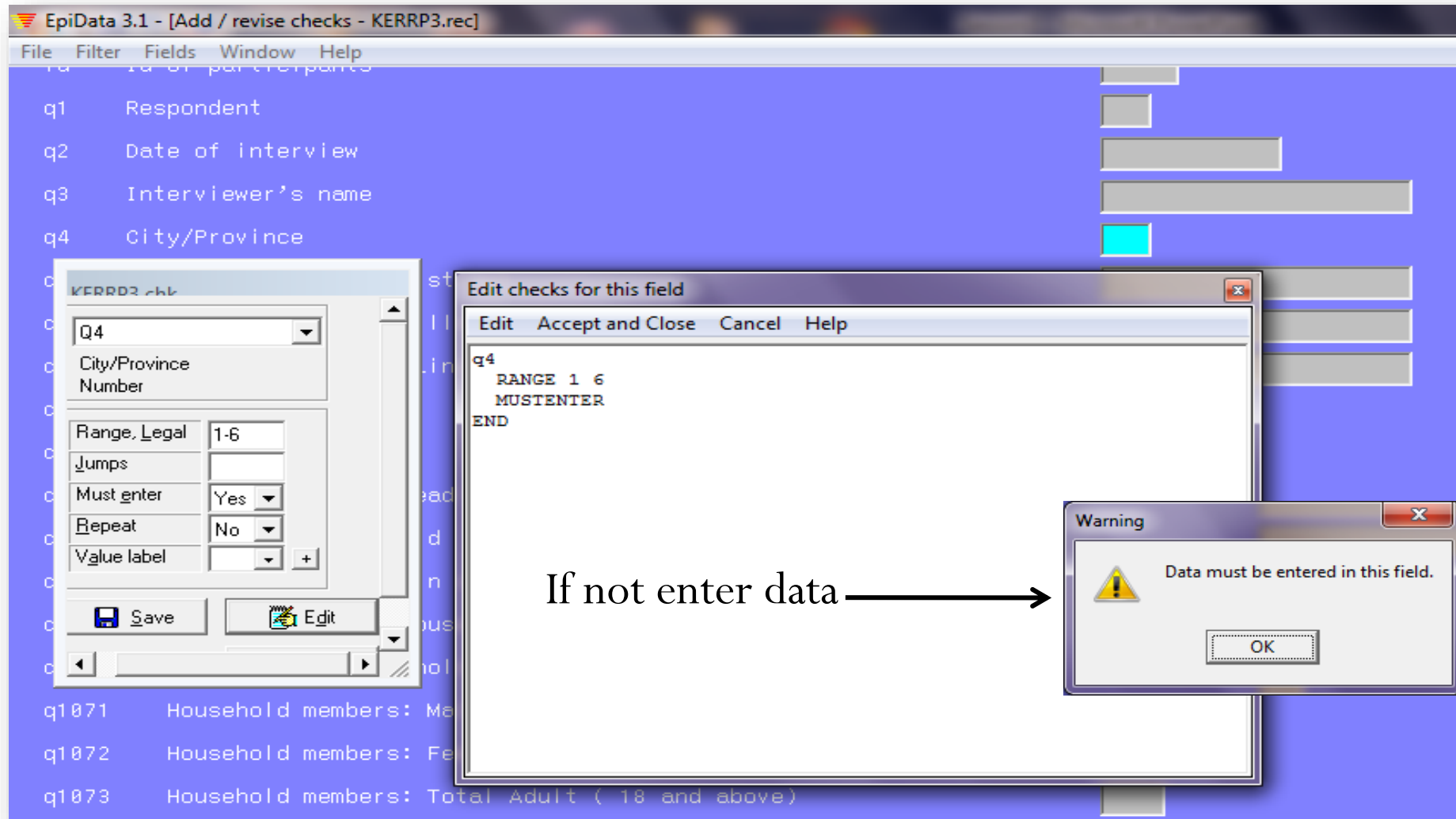
- E.g. 3, illegal code



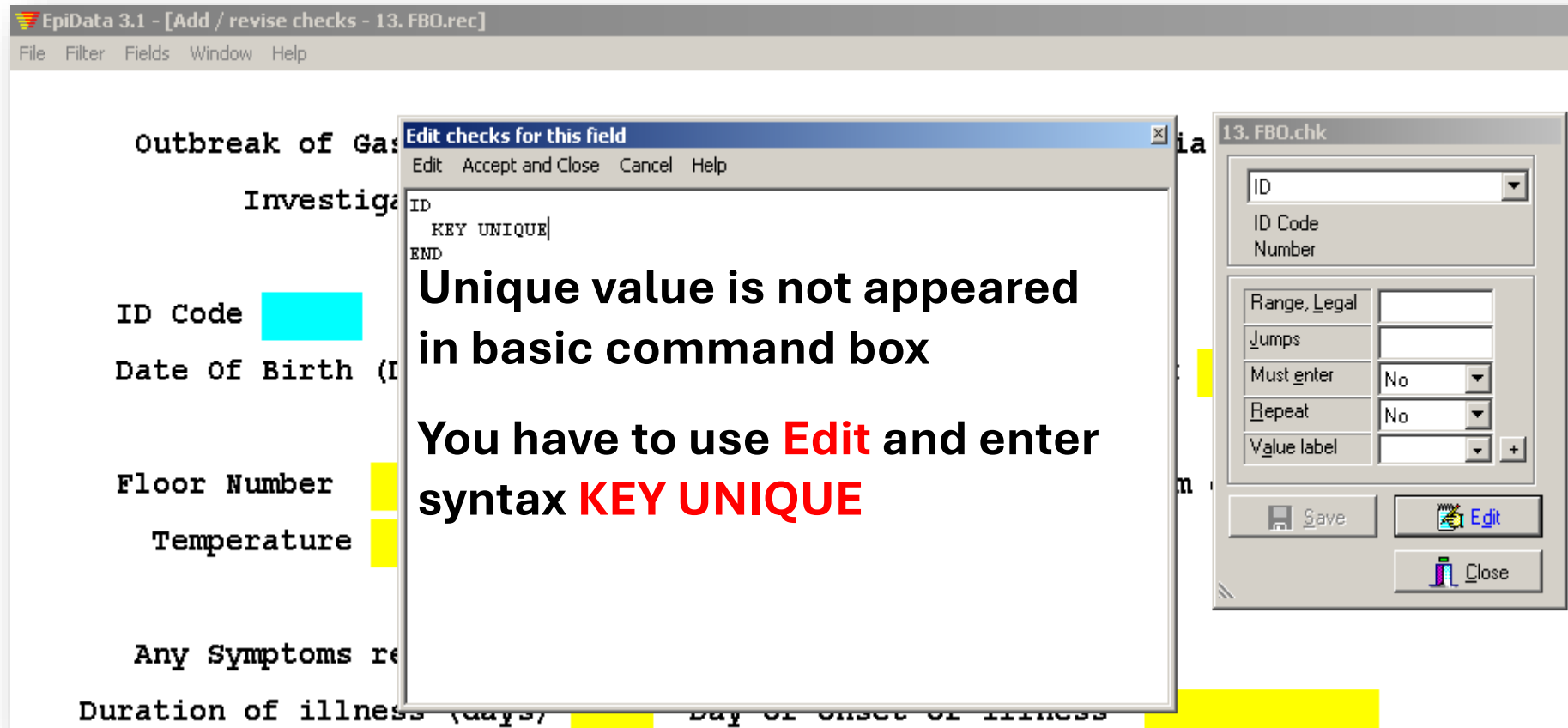
Edit Option: display corresponding syntax



Must Enter Command: This field needs to be entered otherwise you will not be able to continue to another field.




Unique value (KEY UNIQUE): commonly used for ID code to advice the duplication ID



Unique value: e.g. id No. 1 was already entered, if you enter No.1 again, you will get the message box below;

id	Id of participants	001
q1	Respondent	
q2	Date of interview	
q3	Interviewer's name	
q4	City/Province	
q51	Interview Location District	
q52	Interview Location Village	
q53	Interview Location Link to road (code)	
q101	Sex of respondent	
q102	How old are you?	

Warning



Duplicate key in id
Value already entered in record #1

Goto record #1?

Yes

No

CHK: Jumps

- For a value, specifies which field to jump to
- 1>Symptoms
- 1>Symptoms,0> END

The screenshot shows a dialog box titled 'test.chk'. It contains a dropdown menu with 'N11HASYOUR' selected. Below this is the text '1.1 Has your child been sick?' and 'Number'. A table-like structure contains the following fields:

Range, Legal	
Jumps	1>SYMPTOMS
Must enter	No
Repeat	No
Value label	

At the bottom are three buttons: 'Save' (with a floppy disk icon), 'Edit' (with a pencil icon), and 'Close' (with a window icon). A '+' button is also present next to the 'Value label' field.

More COMMENT LEGAL

Meal

COMMENT LEGAL

1 Yes

2 No

3 “Not Known”

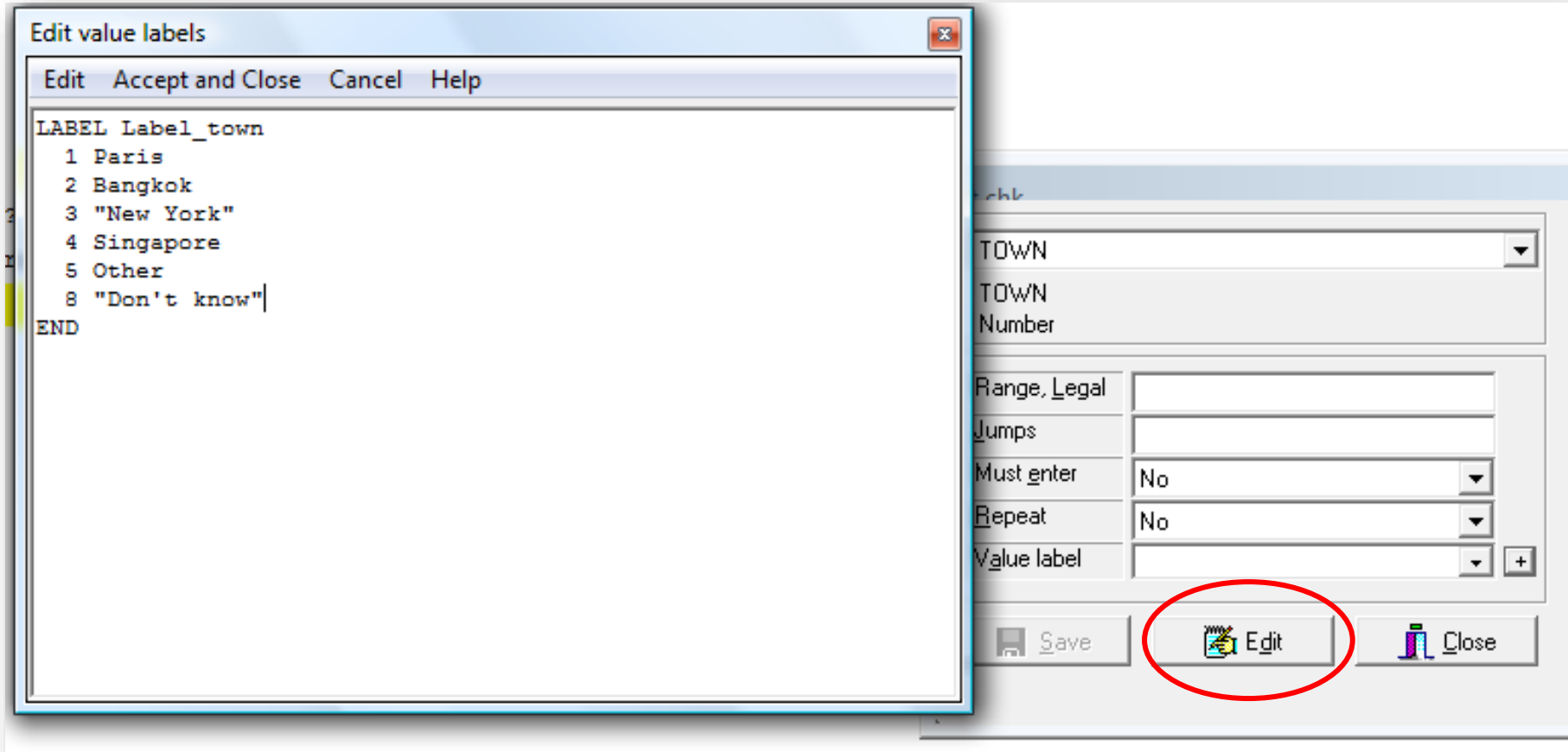
END

END

- COMMENT LEGAL **SHOW**
Shows pop-up box with values
- TYPE COMMENT
Label is written next to the field after entry

CHK: Value labels

- Click “+” to define a label
- Use quotes if spaces in label values



EpiData 3.1 - [Add / revise checks - ILI1.rec]

File Filter Fields Window Help

Influenza Like Illness (ILI) surveillance
Tangerang Hospital, Banten Province - Indonesia

ID Code [redacted]

Date of Admission (DD/MM/YYYY) [redacted]

Date Of Birth (DD/MM/YYYY) [redacted]

Sex [redacted] (1=Male, 2=Female)

Cough? [redacted]

Temperature [redacted]

Duration of illness (in days) [redacted]

Day of onset of illness (DD/MM/YYYY) [redacted]

Collection of Swabs [redacted]

Laboratory result [redacted] (0=Negative, 1=Rhinovirus, 2=Flu A, 3=Flu B)

Diagnosis at Discharge [redacted] (according to the study codebook)

Values labels:

- Click “+” to define a label
- Type labels in the Edit screen
- Use quotes if space in labels

ILI1.chk

LAB [redacted]

Laboratory result
Number

Range, Legal [redacted]

Jumps [redacted]

Must enter No [redacted]

Repeat No [redacted]

Value label [redacted] [redacted]

Save Edit Close

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result

at Discharge

Edit value labels

Edit Accept and Close Cancel Help

LABEL Label_lab

0 Negative

1 Rhinovirus

2 "Flu A"

3 "Flu B"

END

Values labels:

- Click “+” to define a label
- Type the labels in the Edit screen
- Use quotes if space in labels
- Don’t forget to click “accept and close”

(0=Negative, 1=Rhinovirus, 2=Flu A, 3=Flu B ...)

(according to the study codebook)

ILI1.chk

LAB

Laboratory result
Number

Range, Legal

Jumps

Must enter No

Repeat No

Value label

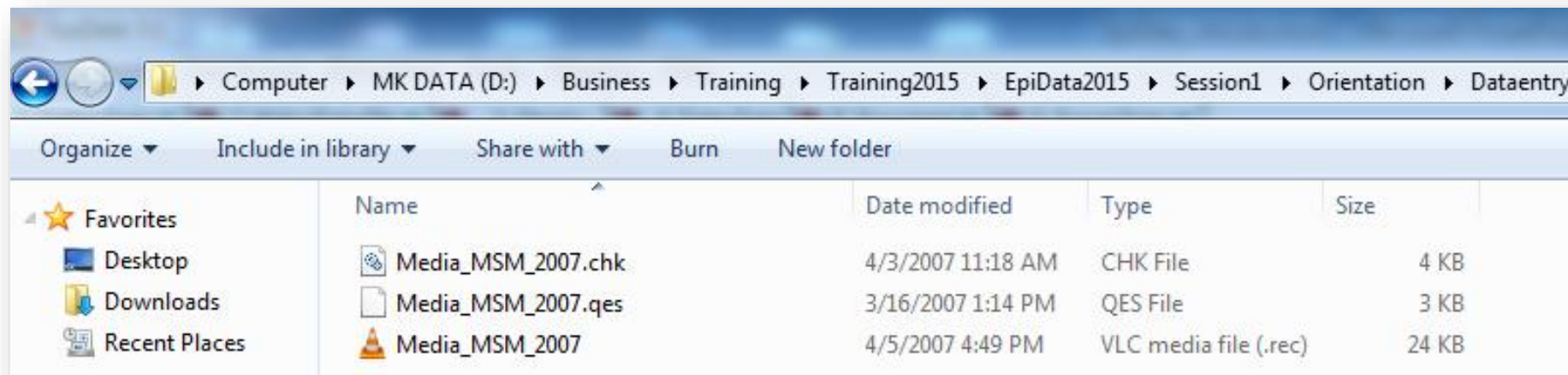
+

After-entry Commands

- Allow calculation just after entry
- “**LET**” “**IF ... THEN**” commands
- Calculation for a field of a pre-defined variable
 - Example 1: [**AGE**] from [**DATE OF BIRTH**]
 - Example 2: [**FEVER**] from [**TEMPERATURE**]
- New variables **should have been pre-defined** (format) in the QES file !

How to Store EpiData Files ?

- All the 3 files (QES, REC and CHK) of a particular project should be stored in the same folder
- The 3 files should have the same names
- Different projects/questionnaires → different folders



HELP, TYPE

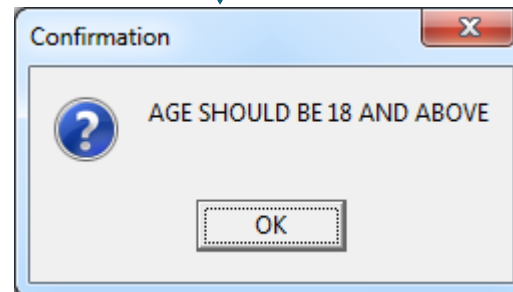
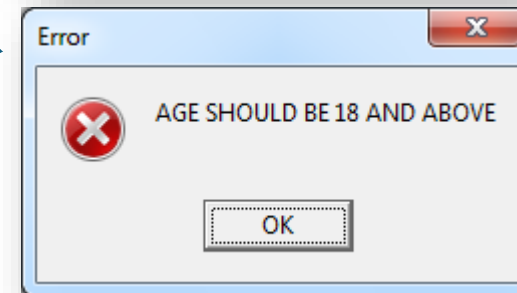
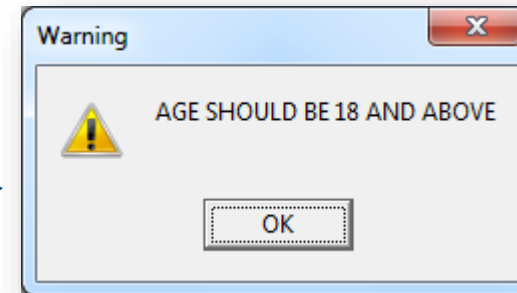
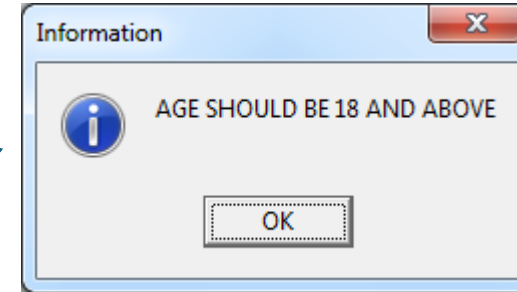
Shows a message box on the screen with the specified text. The user must click the OK button before data entry can continue. Four different types of message boxes exist: information boxes, warnings, confirmation boxes and error boxes.

HELP "....."

HELP "....." TYPE=WARNING

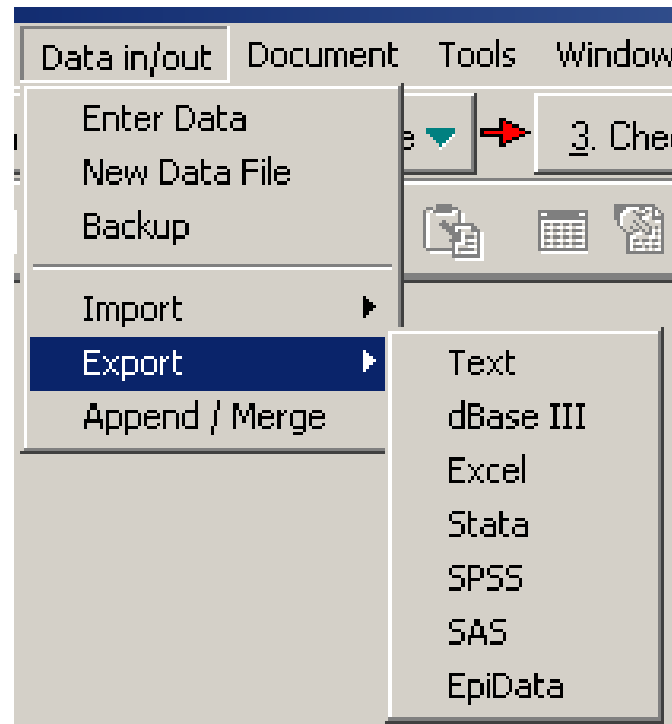
HELP "....." TYPE=ERROR

HELP "....." TYPE=CONFIRMATION

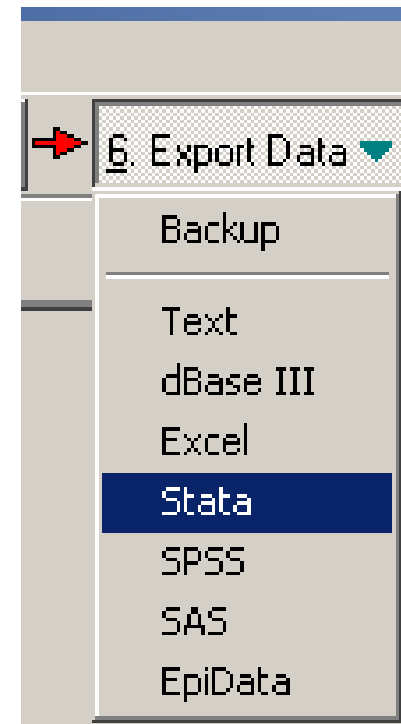


Exporting & importing datasets

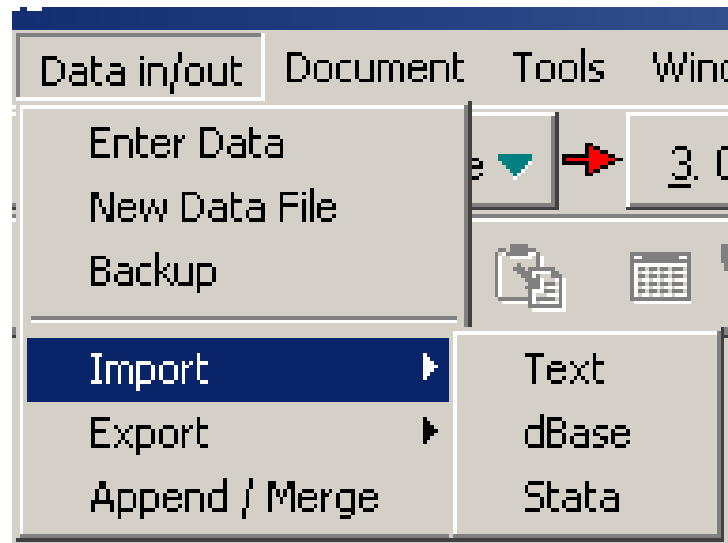
Exporting Data



OR

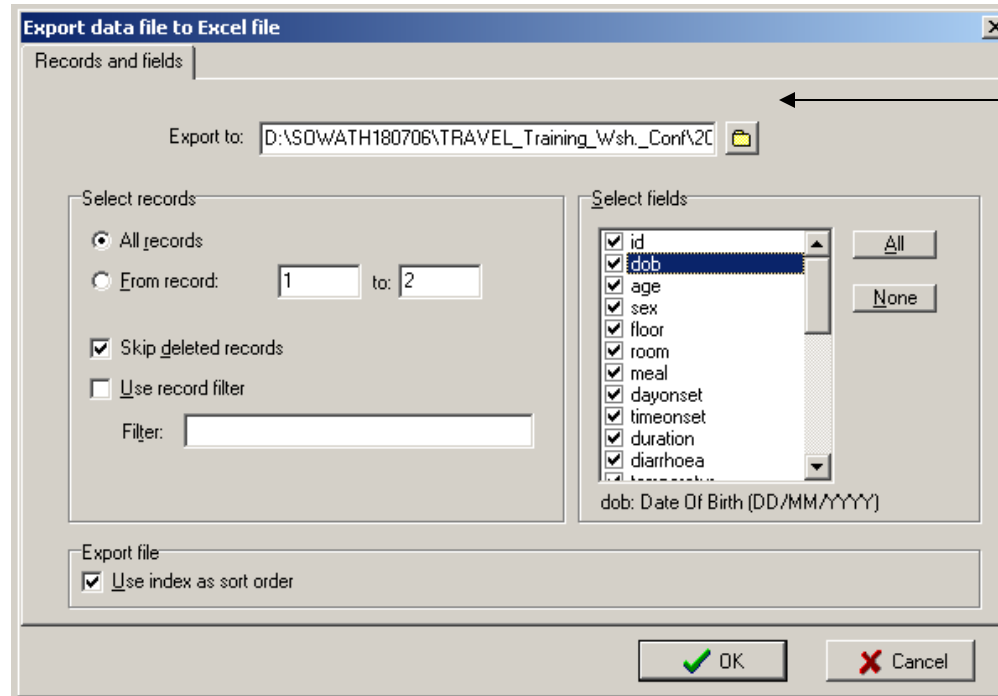


Importing Data



Export REC to XLS (Excel) or DBF (dBase)

Default
selections



File name & location

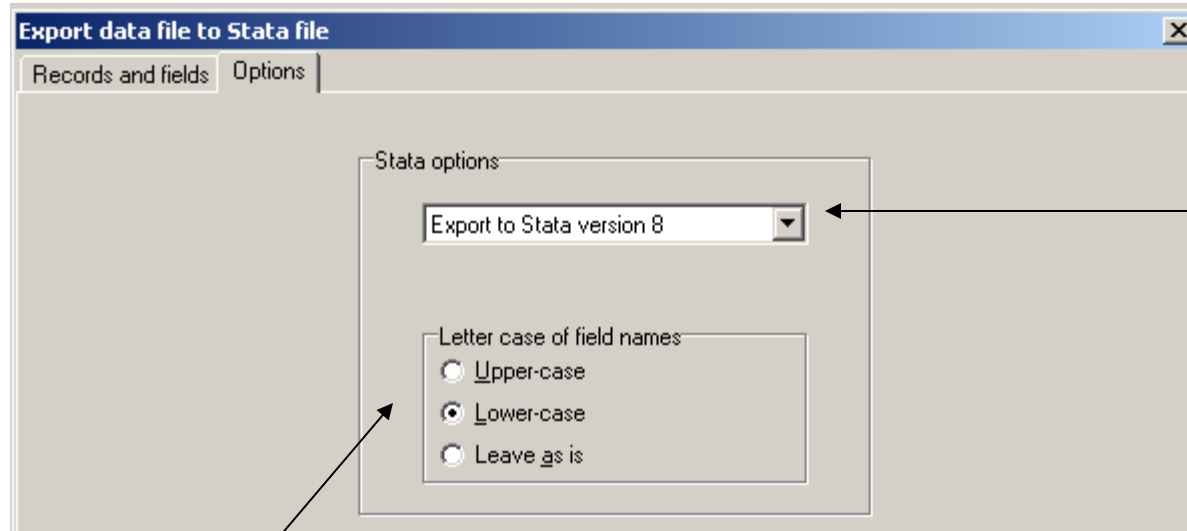
Interpretation of
YES/NO from
Boolean fields

Microsoft Excel - gastro4

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	id	dob	age	sex	floor	room	meal	dayonset	timeonset	duration	diarrhoea	temperatur	fever	vomiting
2	1	05/08/1900	86	2	1	116	1	25/10/1986	19	0	FALSE	39.7	TRUE	TRUE
3	2	16/06/1900	86	2	1	117	1			0	FALSE	36.1	FALSE	FALSE
4														

Note: DBF file can also be read by MS Excel

Export data



Latest version
indicated in EpiData

Lower-case
recommended

Stata
screenshot

Stata/SE 9.2 - [Results]

File Edit Prefs Data Graphics Statistics User Window Help

Variables

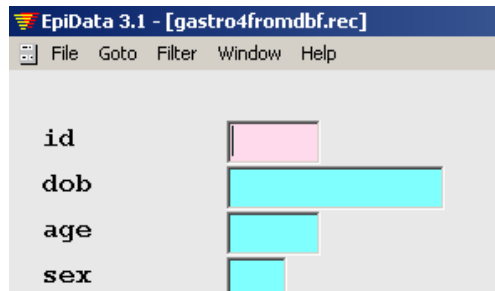
variable name	storage type	display format	value label	variable label
id	int	%3.0f		ID Code
dob	long	%d		Date of Birth (DD/MM/YYYY)
age	int	%3.0f		Age
sex	byte	%1.0f	SEX	Sex
floor	byte	%1.0f		Floor Number
room	int	%3.0f		Room Number
meal	byte	%1.0f	MEAL	Meals in dining room or own room
dayonset	long	%d		Day of onset of illness

```
. list id dob age sex floor room meal dayonset
```

	id	dob	age	sex	floor	room	meal	dayonset
1.	1	05aug1897	89	F	1	116	D	25oct1986
2.	2	16jun1900	86	F	1	117	D	.

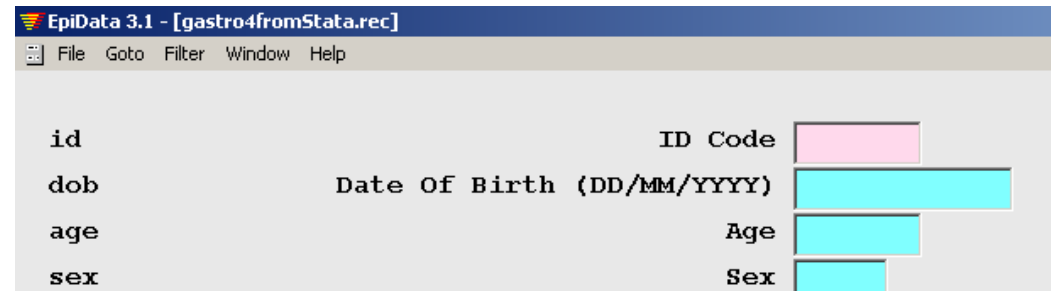
Import Data

- Straight forward process
- Verify the structure of the output REC file
 - Field names, field labels, category value labels, CHK file
 - DBF → REC: only REC file will be created
 - DTA → REC: REC and CHK will be recreated according to the initial design of the data entry form (prior to Stata)



id	
dob	
age	
sex	

Import from DBF (dBase)



id	ID Code	
dob	Date Of Birth (DD/MM/YYYY)	
age	Age	
sex	Sex	

Import from DTA (Stata)

- Create QES file from REC file if necessary
 - Tools >>> QES file from REC file

Exercise