

# Data entry form development

## Epi-Data program

Prepared by Associate prof. Prum Virak

Linkage between  
questionnaire and data form

File Edit Document Tools Window Help

1. Define Data → 2. Make Data File → 3. Checks → 4. Enter Data → 5. Document → 6. Export Data

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 belong to 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

**Support Group Screening Questionnaire**

Drug Use Educator: Sok 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 free \_\_\_\_\_  
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 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" to 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 it back of book.

Data entry form



Epi-Data software

EpiData 3.1 - [drugstudynewfinalrec]

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- Sok Heang 6- Heak Chansopheap  
2- Leng Sokunthea 7- Lim Leang  
3- Meuang Lina 8- Tha Socheat  
4- Juon Chanty 9- Tan Chivy  
5- Sok Heang 10- Marady day/month/year  
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

Data analysis

STATA software

Stata/IC 12.0 - D:\Business\VRG\Book development\drugstudy\drugstudynewfinal\_correct.dta

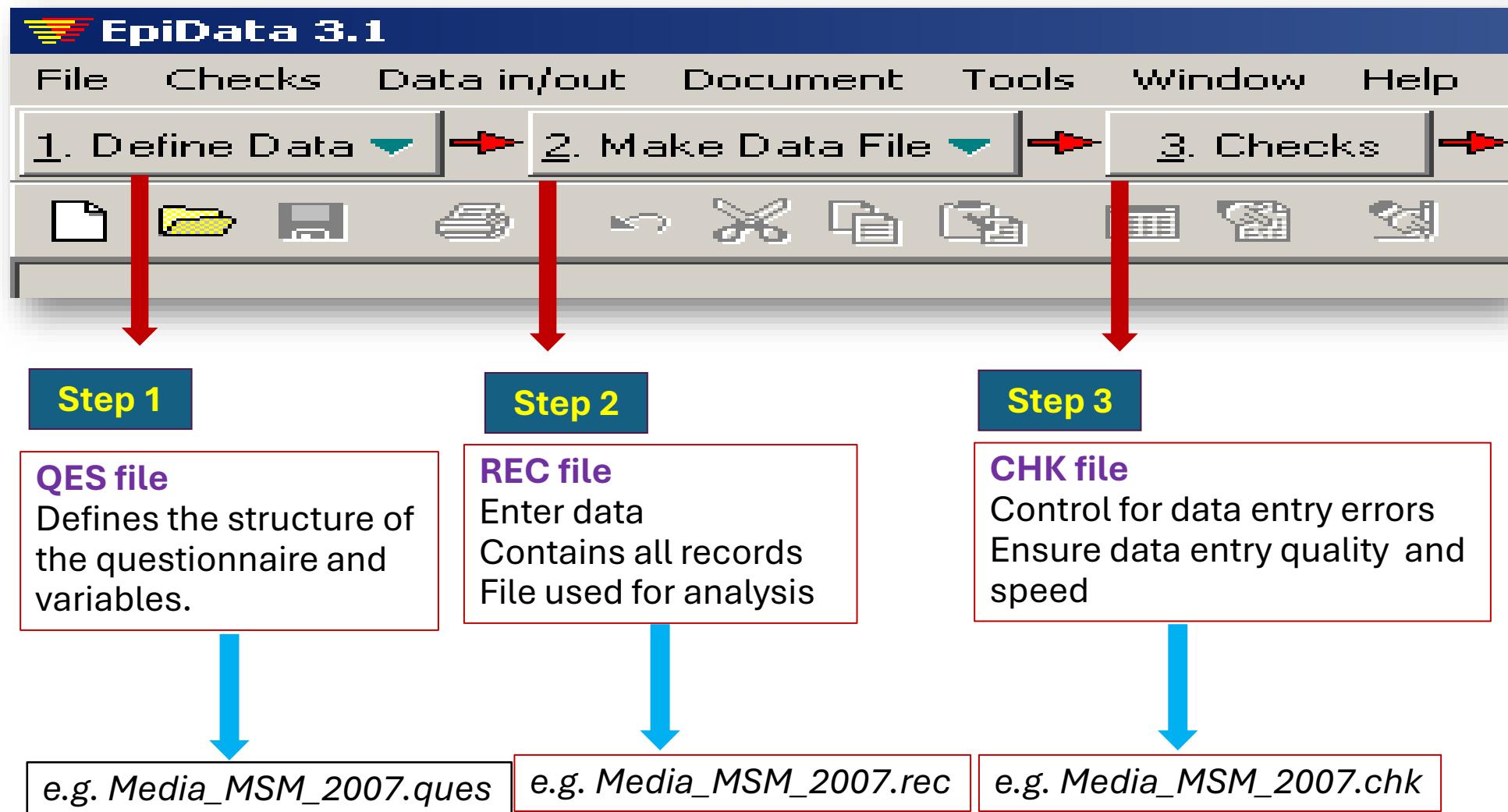
File Edit Data Graphics Statistics User Window Help

Review  
# Command  
1 use "D:\Business\VRG\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?

Notes:  
. use "D (drugstu  
. tab q2  
Do dx alcoh n  
Tc  
Command

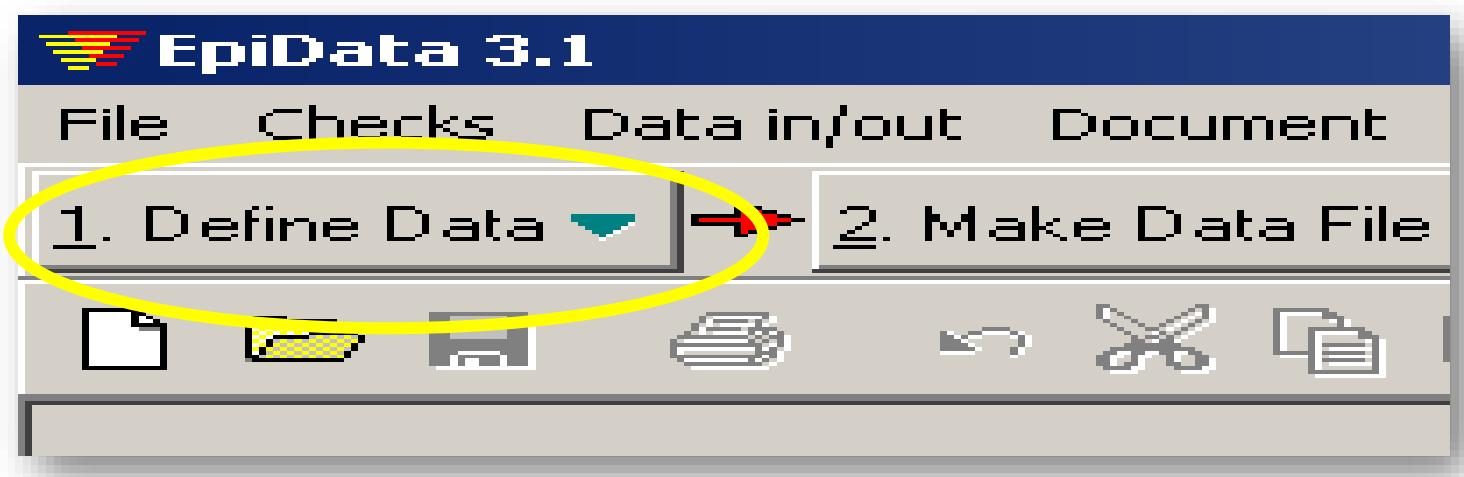
# Data entry form development: 3 main file types



# 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



# Typing all questions in Window Editor

Phnom Penh

**Support Group Screening Questionnaire**

Drug Use Educator: Sok Heng, 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 blank spaces.)

**Questionnaire**

1. How old are 19 (age)

2. Do you drink  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/yaha  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" to any in 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.

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?	<dd/mm/yyyy>
Q2	Do you drink alcohol now?	## years
Q3	How old were you when you first tried alcohol?	#
Q4	Have you ever tried other drugs in the past?	## years
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?	#

drugsudy.qes

**Quest Window**

# 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 ## day/month/year  
  
Date Date of interview <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

**Quest Window**

EpiData 3.1 - [DRUG.rec]

File Goto Filter Window Help

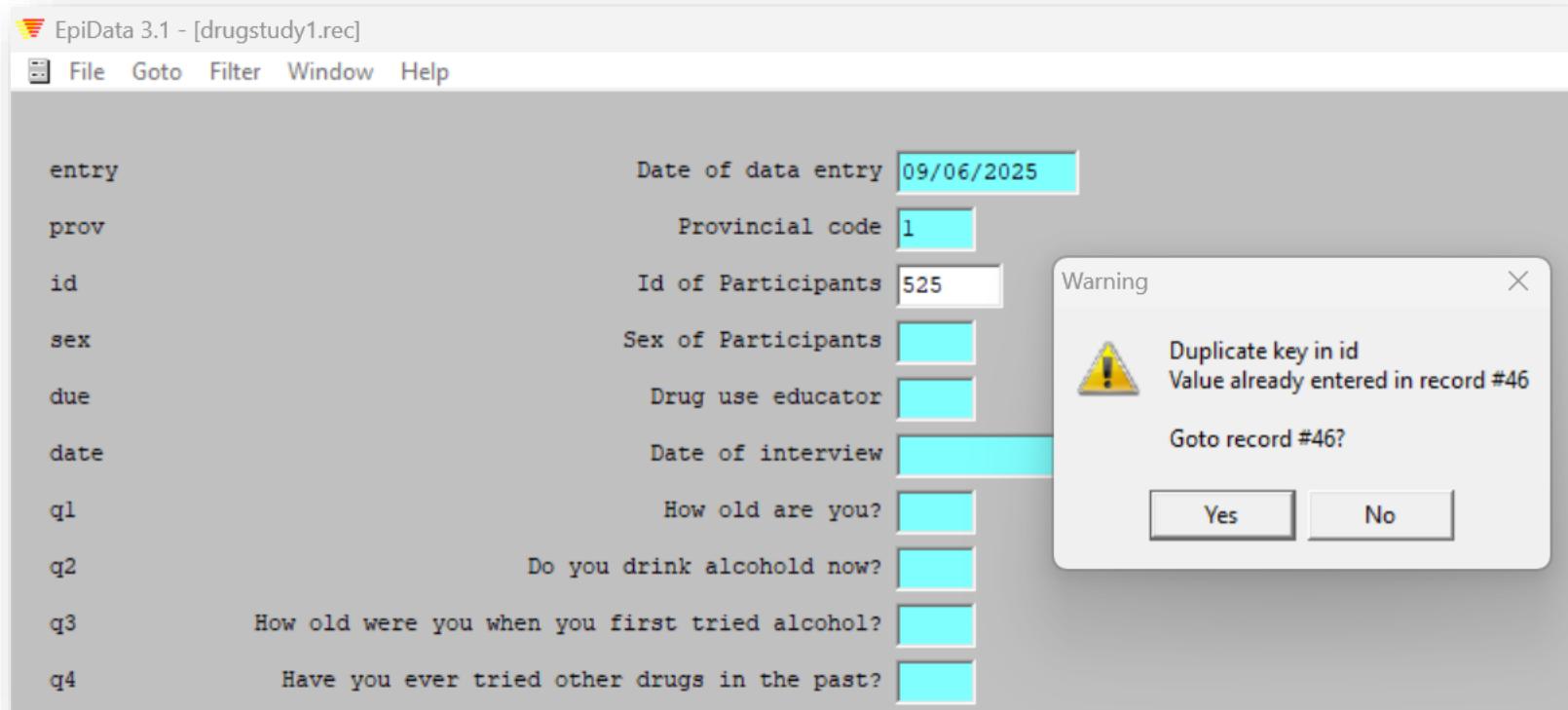
entry Date of data entry 06/09/2025  
prov Provincial code  
id Id of Participants  
sex Sex of Participants  
due Drug use educator  
  
date Date of interview  
q1 How old are you?  
q2 Do you drink alcohol now?  
q3 How old were you when you first tried alcohol?  
q4 Have you ever tried other drugs 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? 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

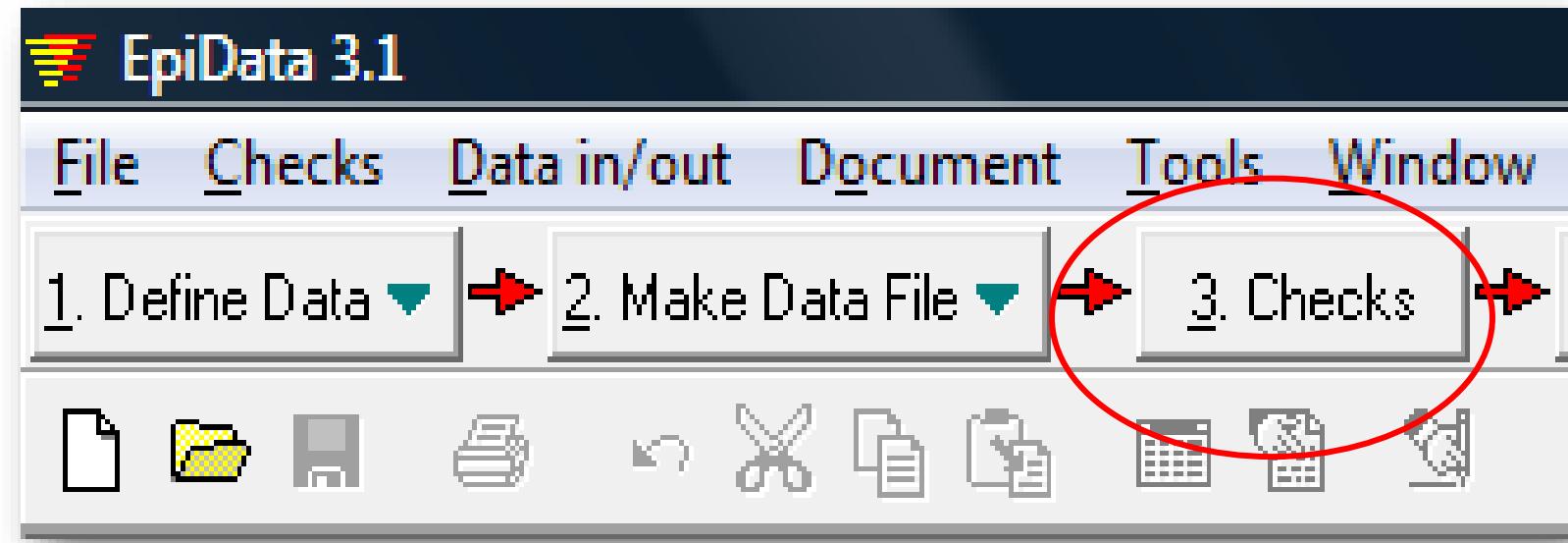


## Common practice

- 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!

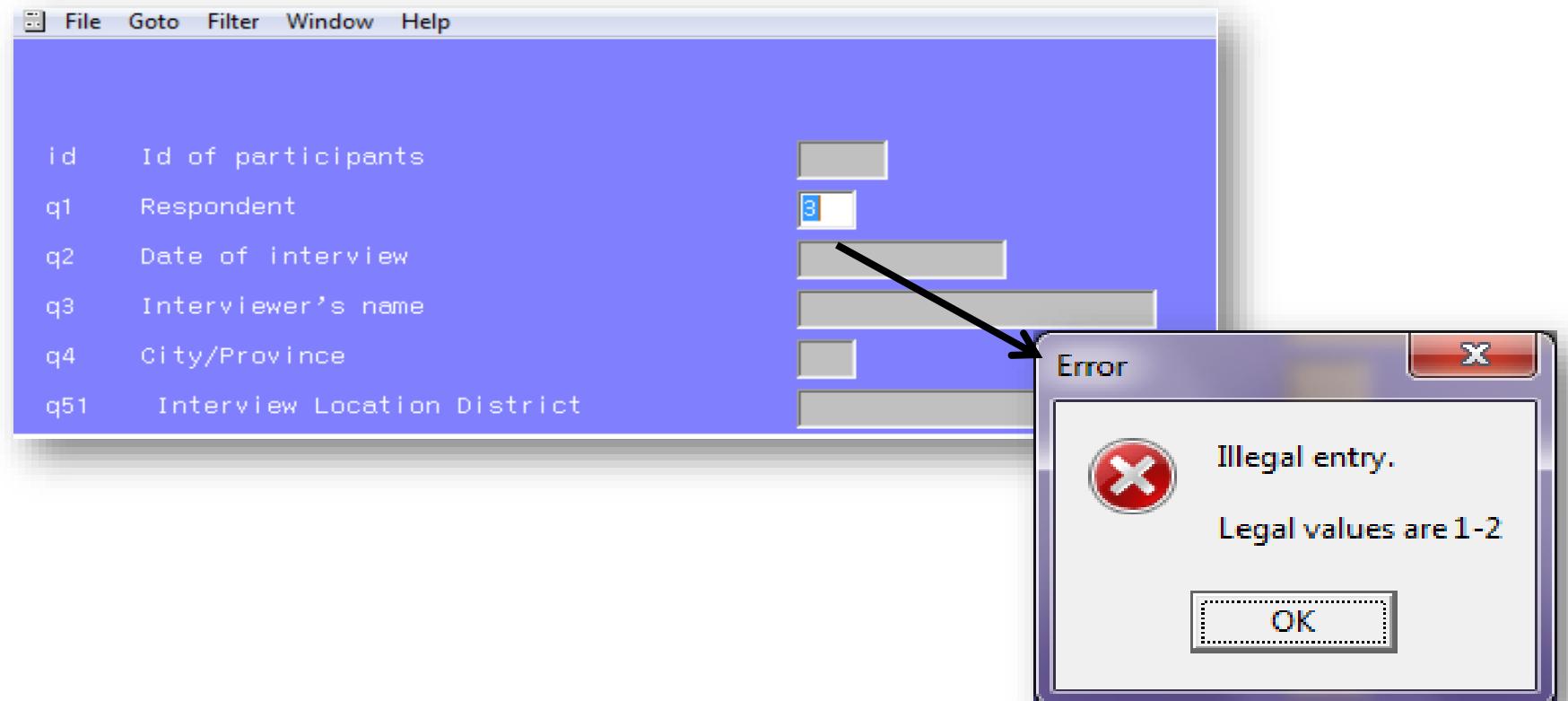
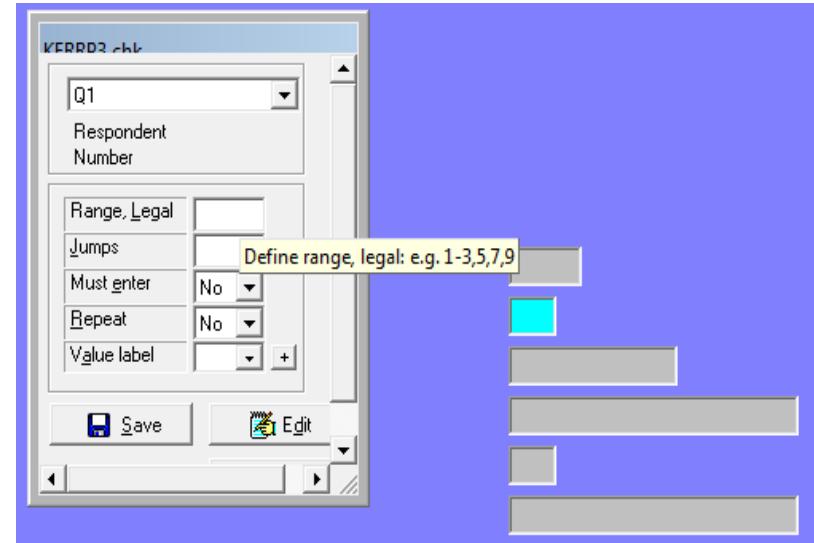
## Creating a CHK file

- 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.

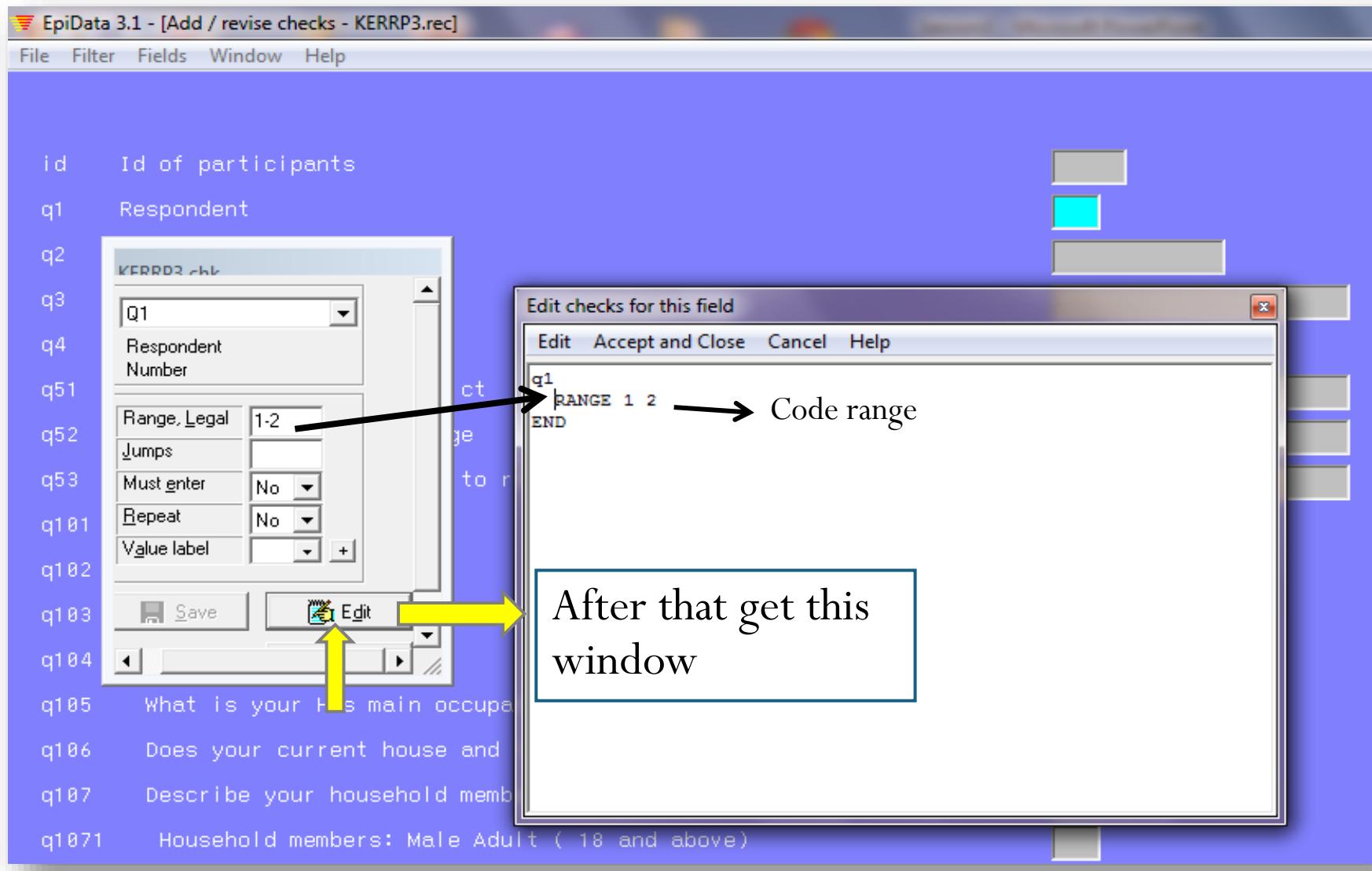


## Range and legal code

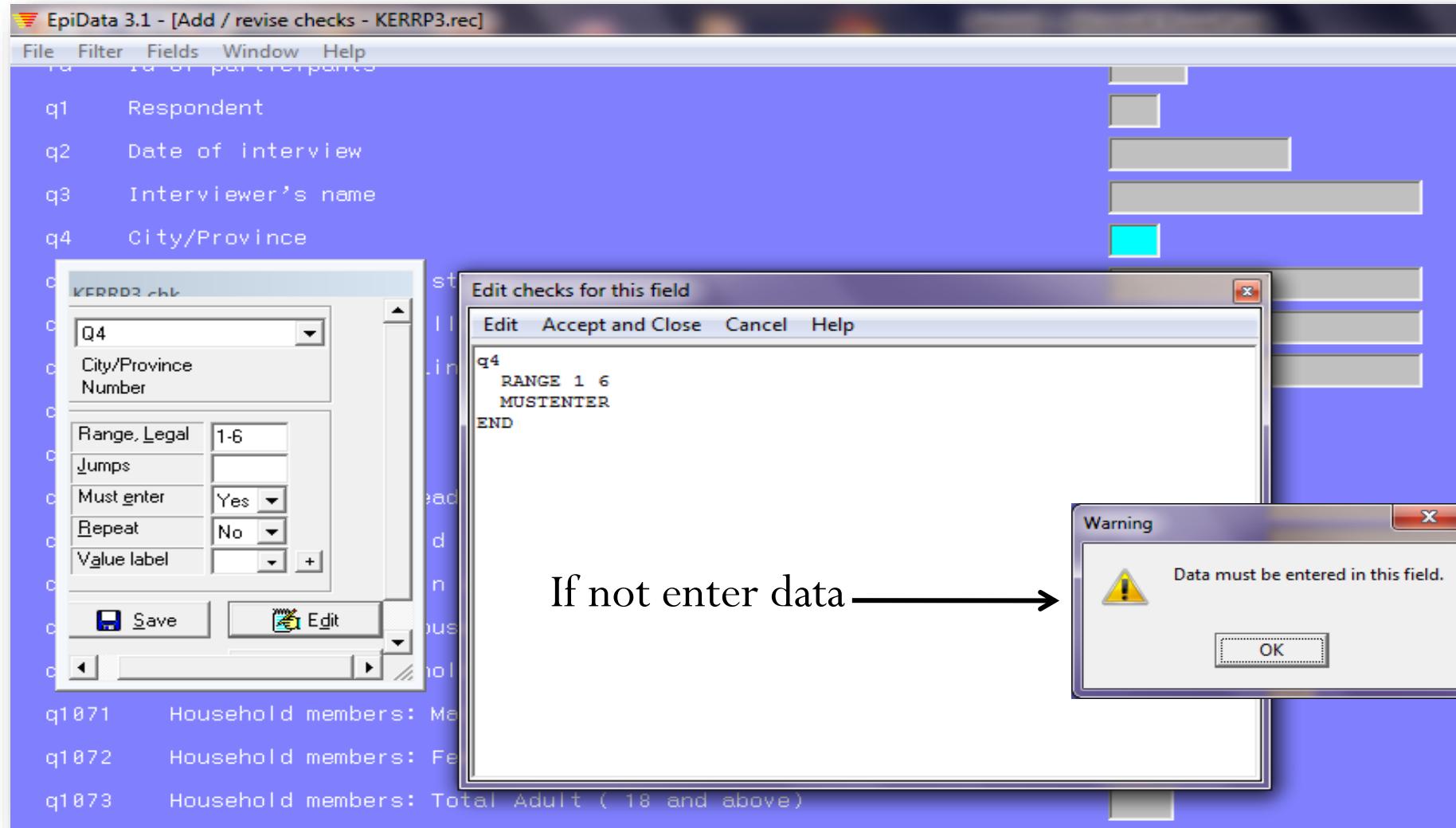
- Range separated by hyphen
- Legal values separated by comma



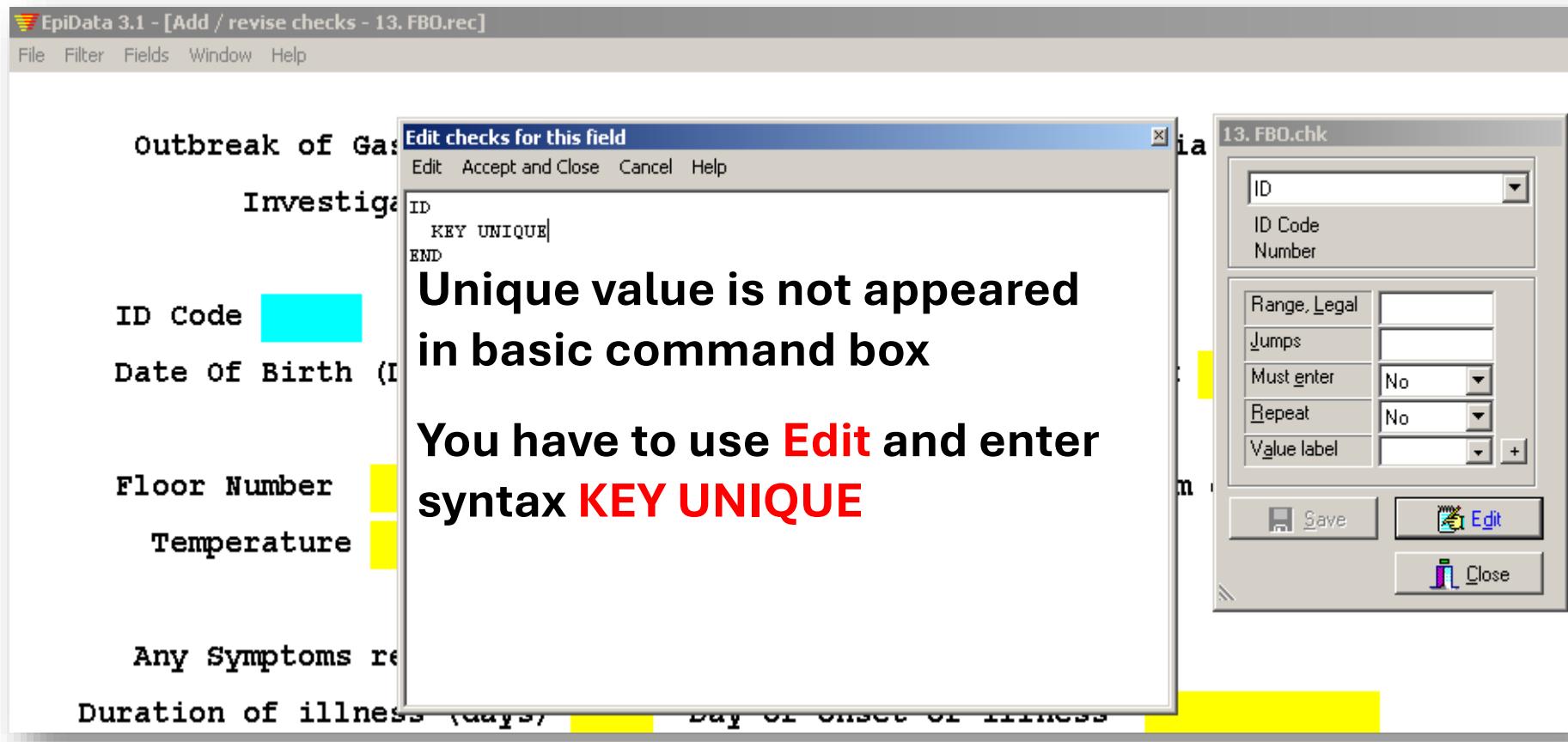
## Edit Option: display corresponding syntax



**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	[redacted]
q2	Date of interview	[redacted]
q3	Interviewer's name	[redacted]
q4	City/Province	[redacted]
q51	Interview Location District	[redacted]
q52	Interview Location Village	[redacted]
q53	Interview Location Link to road (code)	[redacted]
q101	Sex of respondent	[redacted]
q102	How old are you?	[redacted]

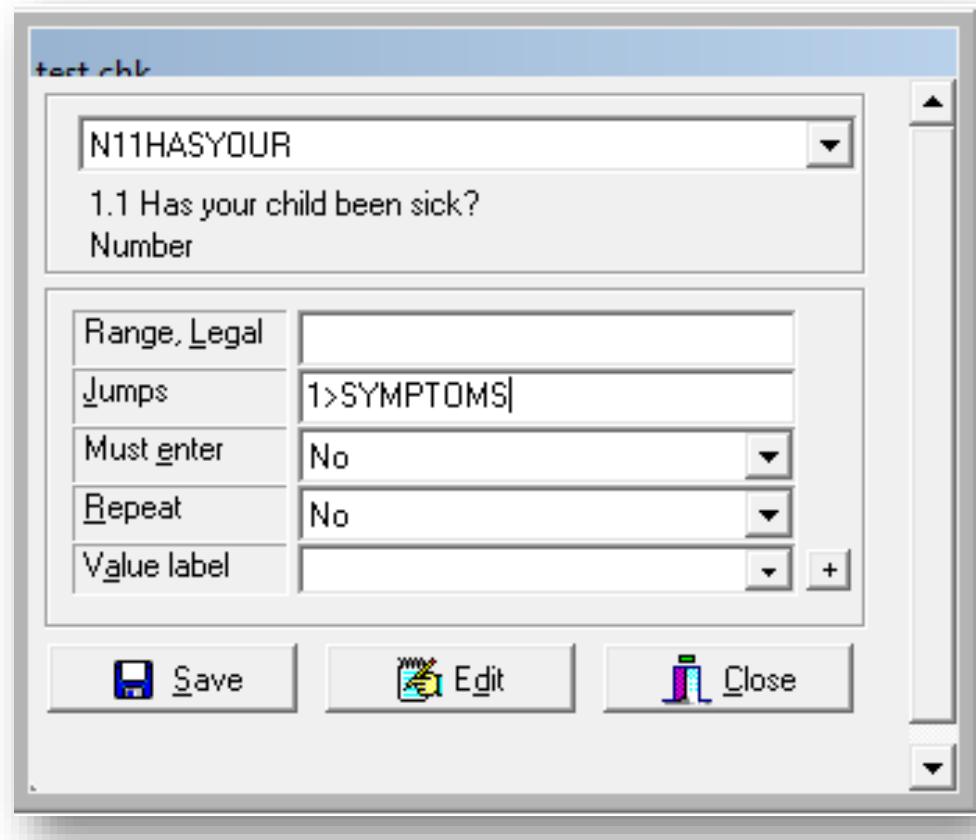
**Warning**

Duplicate key in id  
Value already entered in record #1

Goto record #1?

## CHK: Jumps

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



## More COMMENT LEGAL

Meal

COMMENT LEGAL

- 1 Yes
- 2 No
- 3 “Not Known”

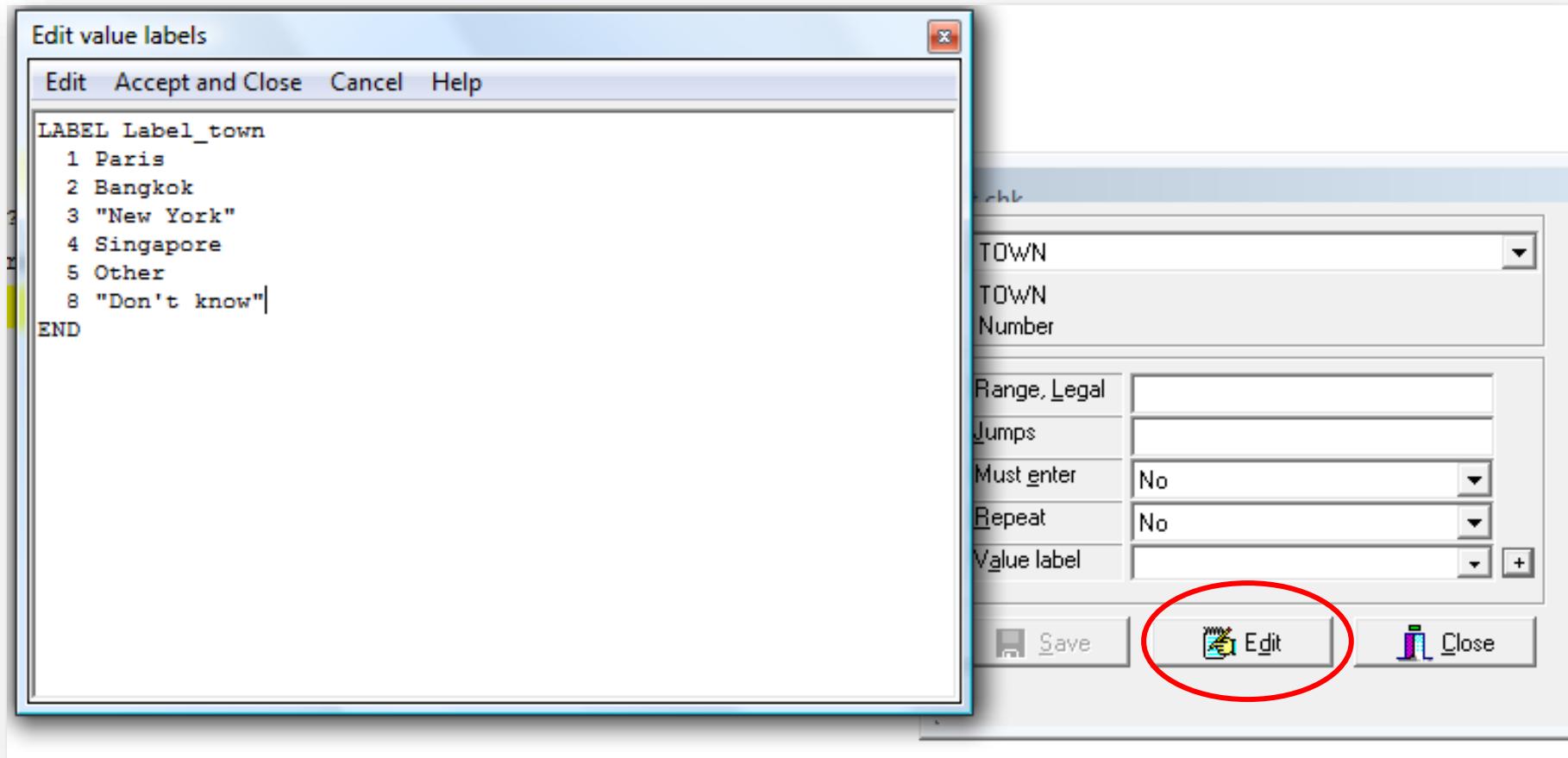
END

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]

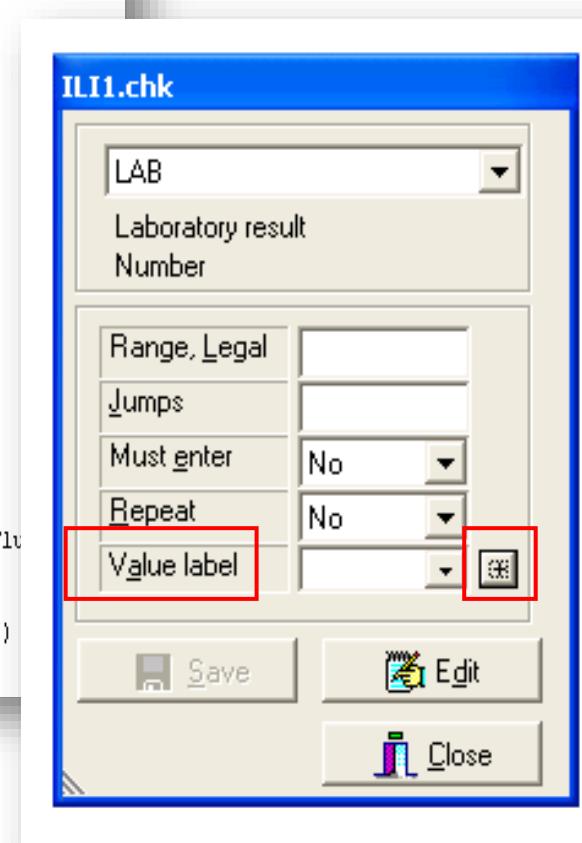
Duration of illness (in days) [REDACTED]  
Day of onset of illness (DD/MM/YYYY) [REDACTED]

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



nza I

Hosp

Edit value labels

File 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”

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

at Discharge (according to the study codebook)

ILI1.chk

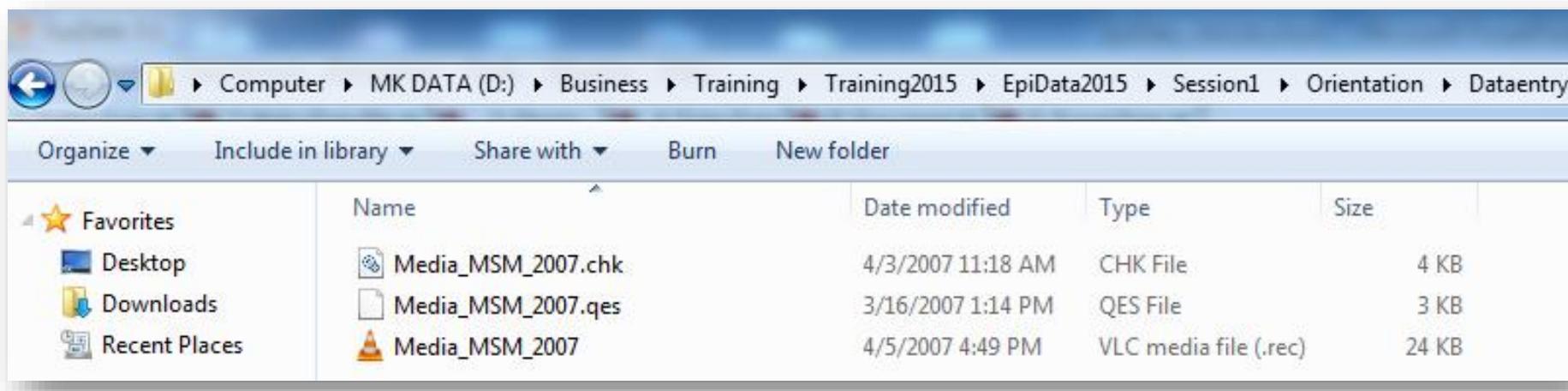
LAB	▼
Laboratory result	
Number	
Range_Legal	<input type="text"/>
Jumps	<input type="text"/>
Must enter	No ▼
Repeat	No ▼
Value label	<input type="text"/> +

## 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

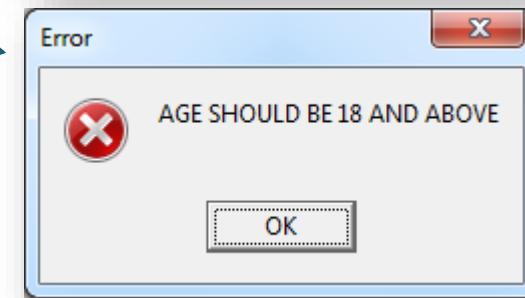
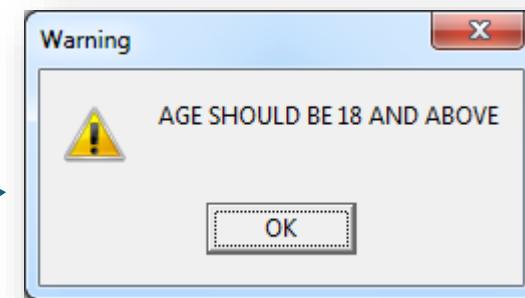
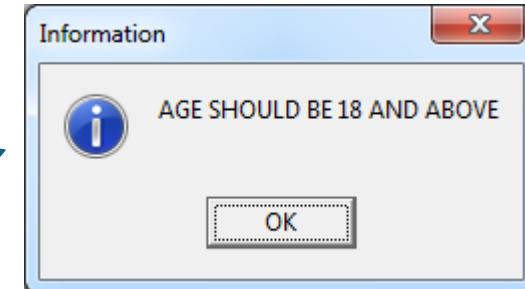
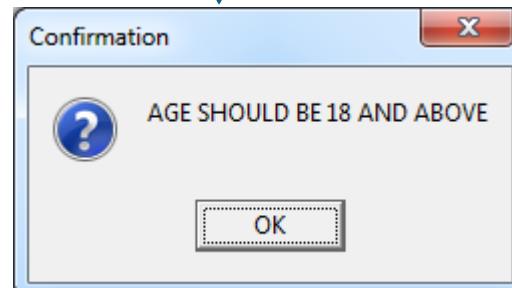
Shows a message box on the screen with the specified text. The user must click the OK button before data entry can continue. Four different types of message boxes exist: information boxes, warnings, confirmation boxes and error boxes.

HELP "....."

HELP "....." TYPE=WARNING

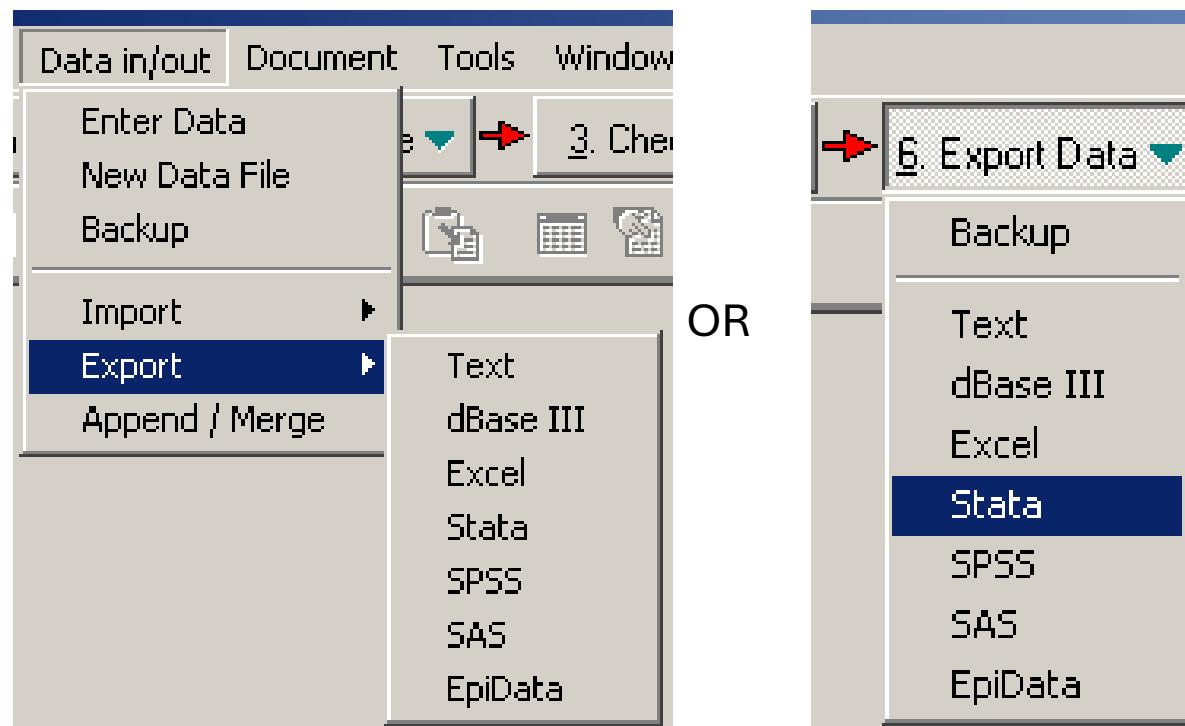
HELP "....." TYPE=ERROR

HELP "....." TYPE=CONFIRMATION

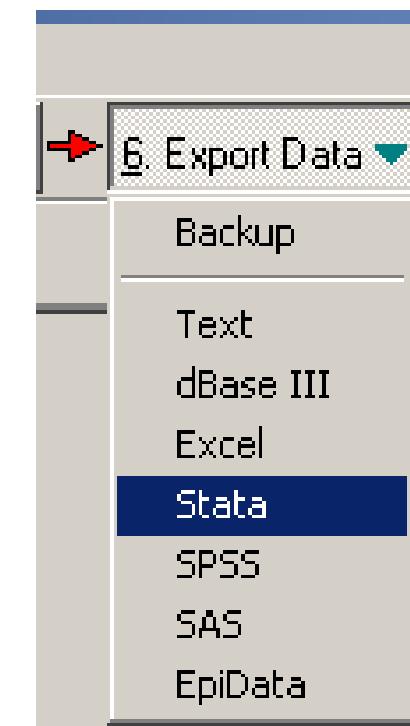


# Exporting & importing datasets

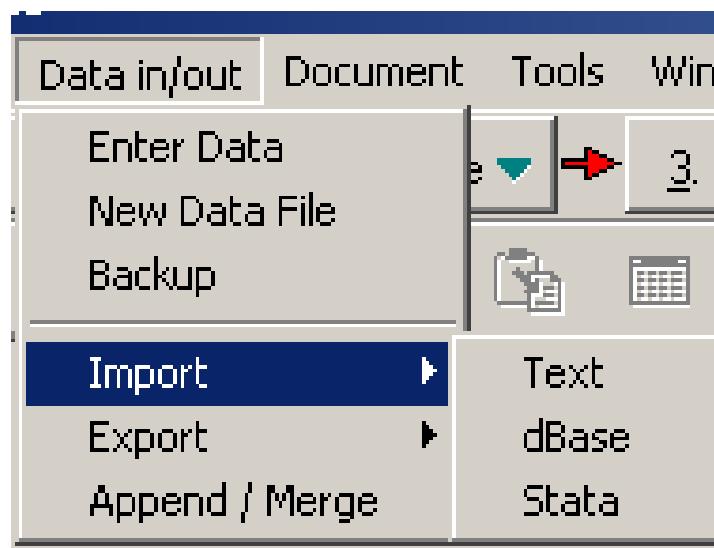
## Exporting Data



OR

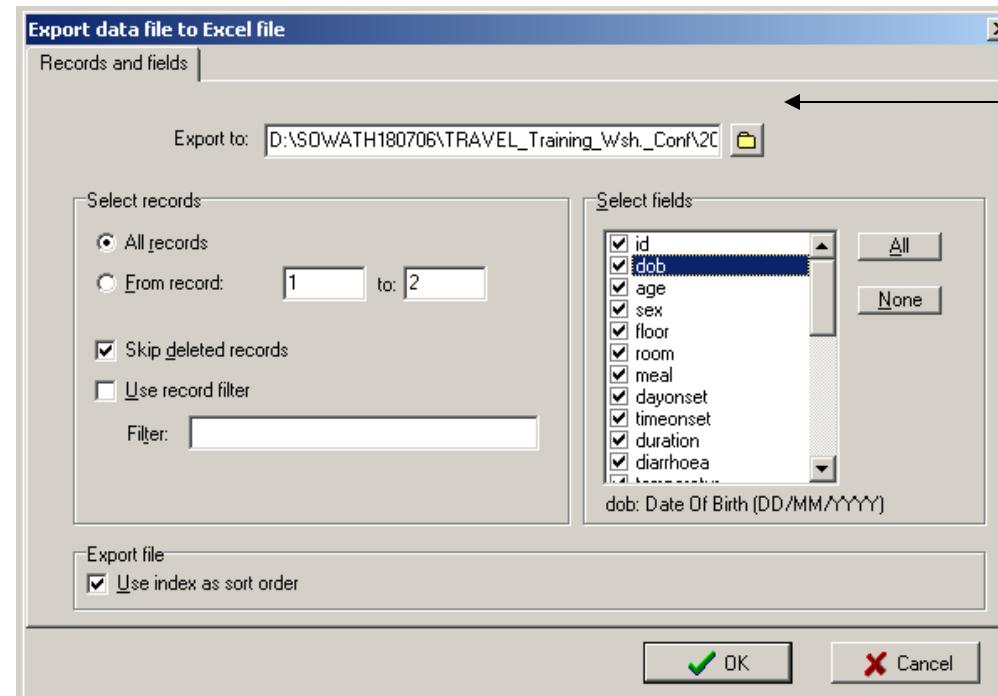


## Importing Data



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

Default  
selections



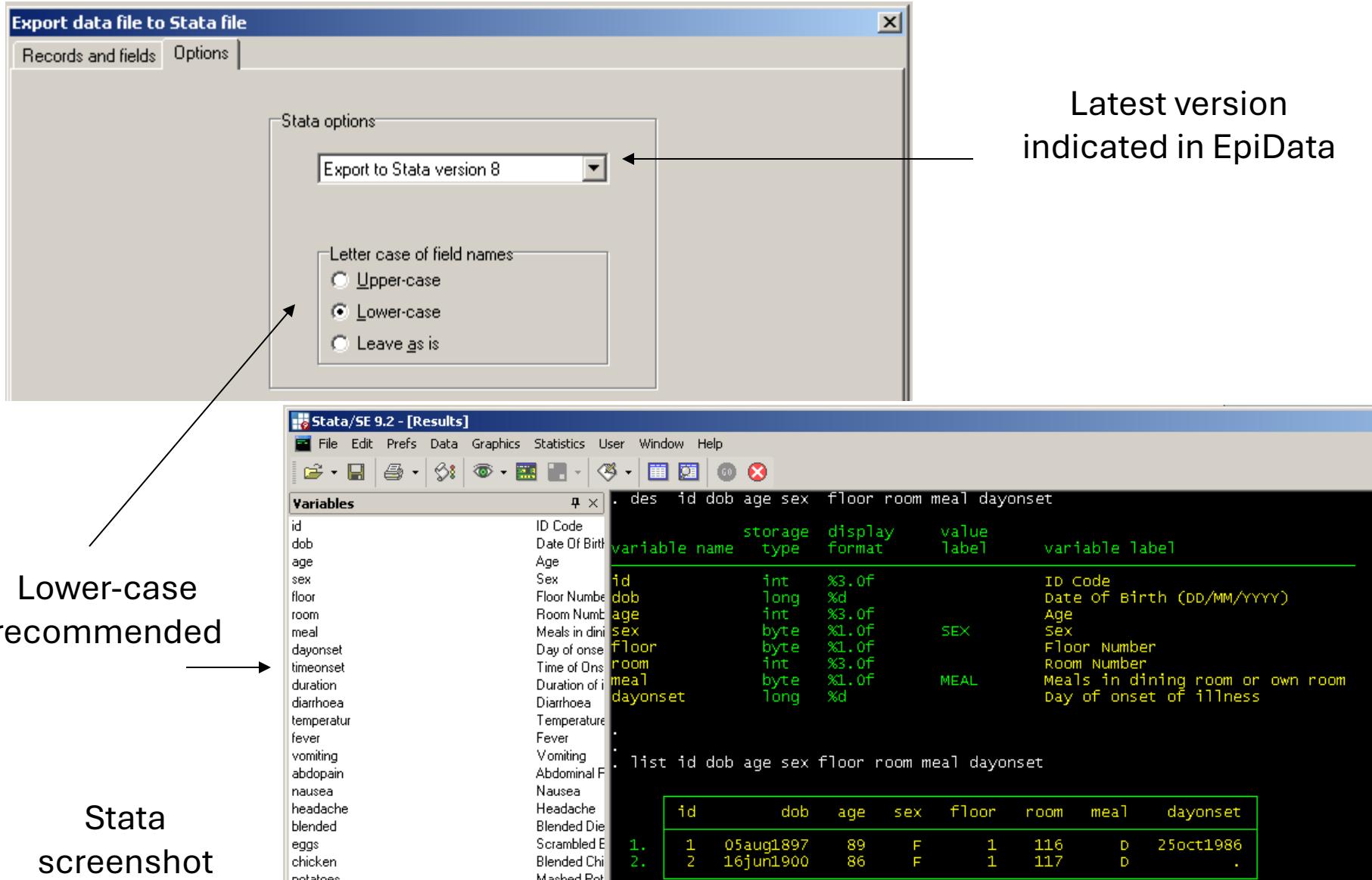
File name & location

Interpretation of  
YES/NO from  
Boolean fields

	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																

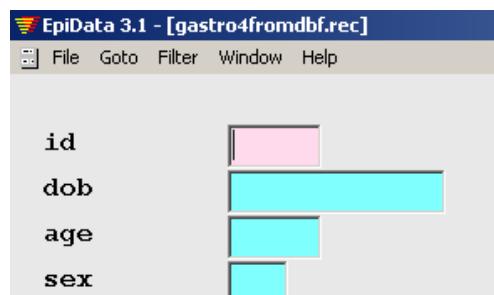
Note: DBF file can also be read by MS Excel

# Export data

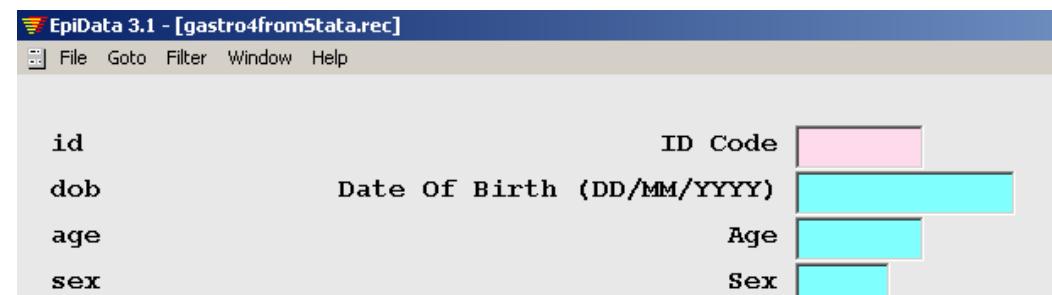


# Import Data

- 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)



Import from DBF (dBase)



Import from DTA (Stata)

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

# Exercise