## Solution to Exercise 1: A data documentation sheet for a simple questionnaire

## Key Point(s):

- It is good practice to write a data documentation sheet before you make your actual EpiData Entry QES file.
- You should always define a value if no answer was provided to a question.
- "Date" is a reserved name in EpiData and cannot be used as a field name.

## Task:

- o Complete the data documentation sheet for all fields in the questionnaire. Note that you should always define a value if no answer was provided to a question.
- o Think of the most efficient ways to code reason for examination and results of microscopic examination.

## Solution:

There are many different solutions, but for the sake of uniformity, we will be using the following (but later revise some components of it) as shown on the next page.

| Field   | Field label             | Field | Field  | Field values           | Value labels                   | Comment                                |
|---------|-------------------------|-------|--------|------------------------|--------------------------------|--|
| name    |                         | type  | length |                        |                                |  |
| serno   | Laboratory serial       | I     | 4      | 1-9000                 |                                | Serial number starting with 1 each     |
|         | number                  |       |        | 9001, 9002,            |                                | year                                   |
|         |                         |       |        |                        |                                | Enter 9001, 9002, if serial number     |
|         |                         |       |        |                        |                                | is not unique or missing, and write a  |
|         |                         |       |        |                        |                                | data entry note (use F5 to open a      |
|         |                         | _     |        |                        |                                | note file)                             |
| regdate | Registration date       | D     | 10     | 01/01/2000-31/12/2005, |                                | Range of legal registration dates      |
|         |                         |       |        | 01/01/1800             |                                | Enter 01/01/1800 if no date recorded   |
| sex     | Examinee's sex          |       | 1      | 1                      | Female sex                     |  |
|         |                         |       |        | 2                      | Male sex                       |  |
|         | + <u> </u>              |       | -      | 9                      | Sex not recorded               |  |
| age     | Examinee's age in years |       | 3      | 0-125,                 |                                | Range of legal years                   |
|         |                         |       |        | 999                    |                                | Age not recorded                       |
| reason  | Examination reason      |       | 1      | 0                      | Diagnosis                      |  |
|         |                         |       |        | 1                      | Follow-up at 1 month           |  |
|         |                         |       |        | 2                      | Follow-up at 2 months          |  |
|         |                         |       |        | 3                      | Follow-up at 3 months          |  |
|         |                         |       |        | 4                      | Follow-up at 4 months          |  |
|         |                         |       |        | 5                      | Follow-up at 5 months          |  |
|         |                         |       |        | 0                      | Follow-up at 6 months          |  |
|         |                         |       |        | 1                      | Follow-up at 7 months of later |  |
|         |                         |       |        | 8                      | Follow-up, month hot stated    |  |
| raal    | Deput of appoimen 1     | 1     | 1      | 9                      | Negotive                       | [If the entered value is other than 6  |
| resi    | Result of specimen 1    | 1     | I      |                        |                                | In the entered value is other than 0,  |
|         |                         |       |        |                        |                                |  |
|         |                         |       |        | 2                      | 2+ positive                    | Uppass II]                             |
|         |                         |       |        | 3                      | Bositive not quantified        | that 0 cannot be entered into the port |
|         |                         |       |        | 5                      | Sconty, not quantified         |  |
|         |                         |       |        | 5                      | Scanty, not quantified         | neidj                                  |
|         |                         |       |        | 9                      | Result not recorded            |  |
| restec  | Posult of specimen 1    | 1     | 1      | 0                      | Not applicable                 |  |
| 163130  | scanty                  | 1     | 1      | 1                      | 1 AEB por 100 OIE              |  |
|         | Scarity                 |       |        |                        | 2 AFB per 100 OIF              |  |
|         |                         |       |        | 3                      | 3 AFB per 100 OIF              |  |
|         |                         |       |        | 4                      | 4 AFB per 100 OIF              |  |
|         |                         |       |        | 5                      | 5 AFB per 100 OIF              |  |
|         |                         |       |        | Ĩ                      | 6 AFB per 100 OIF              |  |
|         |                         |       |        | 7                      | 7 AFB per 100 OIF              |  |
|         |                         |       |        | 8                      | 8 AFB per 100 OIF              |  |

|        |                      |   |   | 9 | 9 AFB per 100 OIF        |   |
|--------|----------------------|---|---|---|--------------------------|---|
| res2   | Result of specimen 2 | 1 | 1 | 0 | Negative                 | [If the entered value is other than 6,  |
|        |                      |   |   | 1 | 1+ positive              | then write 0 into the next field and    |
|        |                      |   |   | 2 | 2+ positive              | bypass if]                              |
|        |                      |   |   | 3 | 3+ positive              | [If the entered value is 6, then ensure |
|        |                      |   |   | 4 | Positive, not quantified | that 0 cannot be entered into the next  |
|        |                      |   |   | 5 | Scanty, not quantified   | field                                   |
|        |                      |   |   | 6 | Scanty, quantified       |   |
|        |                      |   |   | 9 | Result not recorded      |   |
| res2sc | Result of specimen 2 | Ι | 1 | 0 | Not applicable           |   |
|        | scanty               |   |   | 1 | 1 AFB per 100 OIF        |   |
|        |                      |   |   | 2 | 2 AFB per 100 OIF        |   |
|        |                      |   |   | 3 | 3 AFB per 100 OIF        |   |
|        |                      |   |   | 4 | 4 AFB per 100 OIF        |   |
|        |                      |   |   | 5 | 5 AFB per 100 OIF        |   |
|        |                      |   |   | 6 | 6 AFB per 100 OIF        |   |
|        |                      |   |   | 7 | 7 AFB per 100 OIF        |   |
|        |                      |   |   | 8 | 8 AFB per 100 OIF        |   |
|        |                      |   |   | 9 | 9 AFB per 100 OIF        |   |
| res3   | Result of specimen 3 | I | 1 | 0 | Negative                 | [If the entered value is other than 6,  |
|        |                      |   |   | 1 | 1+ positive              | then write 0 into the next field and    |
|        |                      |   |   | 2 | 2+ positive              | save record to disk]                    |
|        |                      |   |   | 3 | 3+ positive              | [If the entered value is 6, then ensure |
|        |                      |   |   | 4 | Positive, not quantified | that 0 cannot be entered into the next  |
|        |                      |   |   | 5 | Scanty, not quantified   | field]                                  |
|        |                      |   |   | 6 | Scanty, quantified       |   |
|        |                      |   |   | 9 | Result not recorded      |   |
| res3sc | Result of specimen 3 | I | 1 | 0 | Not applicable           |   |
|        | scanty               |   |   | 1 | 1 AFB per 100 OIF        |   |
|        |                      |   |   | 2 | 2 AFB per 100 OIF        |   |
|        |                      |   |   | 3 | 3 AFB per 100 OIF        |   |
|        |                      |   |   | 4 | 4 AFB per 100 OIF        |   |
|        |                      |   |   | 5 | 5 AFB per 100 OIF        |   |
|        |                      |   |   | 6 | 6 AFB per 100 OIF        |   |
|        |                      |   |   | 7 | 7 AFB per 100 OIF        |   |
|        |                      |   |   | 8 | 8 AFB per 100 OIF        |   |
|        |                      |   |   | 9 | 9 AFB per 100 OIF        |   |

Note the following here. For an unknown laboratory date (REGDATE), we must enter a legally existing (valid) date. EpiData will not accept a date 99/99/9999 nor for that matter 29/02/2001. It is a personal preference of us to usually use 9 or 99.9 or the like to define unknown values, be this is only for text or numeric variables. We also introduced a "legal range" for some variables like REGDATE and AGE. We did this a bit arbitrarily, but still tried to keep it within what might be expected.

We made two fields for each result. There are 17 possibilities for a result, and therefore a length of 2 is the minimum required, but even with that the values might not be intuitive, but they should be. An alternative version uses a float of length three to get for instance:

0.0 Negative 1.0 1+ Positive 2.0 2+ positive ... 0.1 Scanty, 1 AFB per 100 OIF 0.2 Scanty, 2 AFB per 100 AFB

Scanty results are relatively rare among positives (perhaps some 10% among diagnostic and some 20% among follow-up examinations in quality-assured high-burden country laboratories), and positives themselves are relatively rare among all (perhaps 10% to 20% among patients coming for diagnostic evaluation). Thus scanty positive results might be only 1% of all results. We therefore chose to use integer variables and bypass the field scanty, unless the first field defines the result as quantified scanty.