



ICT household statistics: model questions and questionnaire design

Capacity Building Workshop on Information Society
Statistics: Infrastructure, Household and other
Indicators

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Introduction

- This presentation is based largely on the work of the *Partnership on Measuring ICT for Development*
 - which resulted in the publication in 2005 of *Core ICT indicators*.
- It complements the presentation by Esperanza and discusses the model questions for the core indicators.....
- and some other information on questionnaire design.

Household access indicators – HH1–5, HH7 & HH12

- These indicators refer to access of the household to ICT equipment and services, not to use of those products by the household.
- In order for a household to have access to ICT equipment or services, it should be *able to be used*, that is, equipment is in working condition, or expected to be returned to that condition soon...
- ...and ICT services (Internet access, mobile phone service) should be in operation, or expected to be returned to that condition soon.
- The indicators are presented as the *proportion of households with [equipment, Internet access]*. The indicators are calculated by dividing the number of in-scope households with [equipment, Internet access] by the total number of in-scope households.
- For HH12 (Internet access by type), output for each *type of access* category can alternatively be presented as a proportion of households with the Internet.
- Sub-indicators can be constructed using the classificatory variables household composition and size.

HH1 Proportion of households with a radio

- Suggested model question: **Does any member of this household/do you have access to a radio at home?**

HH2 Proportion of households with a TV

- Suggested model question: **Does any member of this household/do you have access to a television at home?**

HH3 Proportion of households with a fixed line telephone

- Suggested model question: **Does this household have a fixed line telephone at home?**

HH4 Proportion of households with a mobile cellular telephone

- Suggested model question: **Does any member of this household/do you have access to a mobile cellular telephone at home?**

HH5 Proportion of households with a computer

- Suggested model question: **Does any member of this household/do you have access to a computer at home?**

*The term “do you” is included to cover single person households.

HH7 Proportion of households with Internet access at home

- Suggested model question: **Does any member of this household/do you have access to the Internet at home regardless of whether it is used?**

HH12 (EC) Proportion of households with access to the Internet by type of access

- Suggested model question: **What type/s of Internet access services are used for Internet access at home?**

Response categories (*multiple responses are possible*)

Analog modem (dial-up via standard phone line)

ISDN (Integrated Services Digital Network)

DSL (ADSL, SDSL, VDSL etc.)

Cable modem

Other narrowband (*includes mobile phone and other access with an advertised download speed of < 256 kbit/s, in one or both directions*)

Adapt to services available

Other broadband (*includes FTTH, satellite, WiMAX, some mobile phone and other access with an advertised download speed of => 256 kbit/s, in one or both directions*) Adapt to services available

Do not know

Individual use indicators – HH6, HH8 –11, HH13

- These indicators refer to use of ICT equipment and services by individuals.
- The suggested time period is the last 12 months (though many statistical offices use a shorter period).
- The indicators are presented as the *proportion of individuals who used [equipment, Internet access] in the last 12 months*, with three indicators dissecting that use (by location, Internet activities, frequency).
- The indicators are calculated by dividing the number of in-scope individuals using [equipment, Internet access] by the total number of in-scope individuals.
- For HH9 (location of use), HH10 (Internet activities) and HH13 (frequency of use), output can alternatively be presented as a proportion of individuals using the Internet.
- Sub-indicators can be constructed using the classificatory variables: age, gender, education, employment status and occupation.

HH6 Proportion of individuals who used a computer (from any location) in the last 12 months

- Suggested model question: **Have you used a computer in the last 12 months?**

HH8 Proportion of individuals who used the Internet (from any location) in the last 12 months

- Suggested model question: **Have you used the Internet in the last 12 months?**

HH9 Location of individual use of the Internet in the last 12 months

- Suggested model question **Where did you use the Internet in the last 12 months?**

Response categories (*multiple responses are possible*)

home

work

place of education

at another person's home

community Internet access facility (*typically free or low cost*)

commercial Internet access facility (*cost may not be market price*)

other places.

HH10 Internet activities undertaken by individuals in the last 12 months

- Suggested model question **For which of the following activities did you use the Internet for private purposes in the last 12 months?**

Response categories (*multiple responses are possible, categories are not necessarily mutually exclusive*)

For getting information:

about goods or services

related to health or health services

from government organisations (Web sites, email)

other information or general Web browsing

For communicating

For purchasing or ordering goods or services

For Internet banking

For education or learning activities

For dealing (interacting) with government organisations

For leisure activities:

playing or downloading video games or computer games

downloading or watching movies, TV programs, music or software

reading or downloading electronic books, newspapers, magazines

other leisure activities.

HH11 (EC) Proportion of individuals with use of a mobile telephone

- Suggested model question: **Did you have personal use of a mobile telephone during some or all of the last 12 months?**

HH13 (EC) Frequency of individual access to the Internet in the last 12 months (from any location)

- Suggested model question **How often did you typically use the Internet during the last 12 months?**
 - At least once a day
 - At least once a week but not every day
 - At least once a month but not every week
 - Less than once a month.

Classifications

- Household characteristics
 - household composition (with/without children under 16)
 - household size (number of members).
- Individual characteristics
 - age: *16 to 24; 25 to 34; 35 to 44; 45 to 54; 55 to 64; 65 to 74*
 - gender
 - highest education level received: *no formal education or primary education (ISCED 0,1); lower secondary education (ISCED 2); upper secondary or post-secondary non-tertiary (ISCED 3,4); tertiary (ISCED 5,6)*
 - employment status: four-way classification: *paid employee; self-employed, unemployed; not in the labour force*
 - occupation (equivalent to ISCO88 major groups).
- Possible extra classifications
 - geographic (rural/urban); income (household or individual).

Survey scope and coverage

- Individuals
 - adults
 - the suggested age range is 16-74 but countries are encouraged to expand the scope where possible, e.g. to younger people.
- Households
 - scope is consistent with individuals, that is, all households where at least one member is aged 16-74
 - there are coverage issues for some countries.

Questionnaire design issues – ICT specific

- Four of the model questions have response categories (location, Internet activities, type of Internet access and frequency).
- Countries have some options about how they deal with these.
- For instance, for three of the questions, countries can add or split categories. As an example, for the Internet activities question (HH10)
 - countries could split the communication activity (e.g. into *email*, *telephoning* and *other*). For international reporting, split categories need to be re-aggregated
 - countries could add an ‘other’ category.
- For frequency, countries can split a category e.g. “less than once a month” could be split to “At least once every three months but not every month” and “less than once every three months”.
- For HH12, household Internet access by type of access, categories should be chosen such that responses can be aggregated to *Total broadband* and *Total narrowband*.
- For HH10, individual Internet activities, countries could ask the question in other ways, e.g. rate each activity according to its frequency of use, rank the activities by frequency.

Questionnaire design issues – ICT specific

- Recall period
 - much debated, especially for the value of Internet purchases
 - variety of recall periods used by countries (and a mix)
 - for the model questions, 12 months likely to be OK; questions are not very complex
 - 12 months avoids seasonal effects and better captures rare events.
- Concepts which may be poorly understood
 - measuring Internet access services
 - measuring interaction with government
 - mobile phones – use, not subscriber
- Adaptation of the model questions
 - structure, question wording and definitions would not necessarily be used unchanged (or literally translated)
 - however it is important to retain the meanings and logic.

General questionnaire design issues

- Most household surveys are conducted by personal interview
 - terms can be explained, and logic applied, by trained interviewers
 - questions will vary with collection methodology – telephone interviewers ask questions differently to face-to-face interviewers.
- Design to maintain respondents' interest and co-operation
 - maintain their motivation to complete the form, e.g. begin with simple questions, don't ask difficult questions
 - make the form logical – group related topics, have a logical flow
 - avoid sensitive questions, assure confidentiality of responses
 - keep the interview to a reasonable length.
- Avoid bias in question wording
 - do not ask leading questions.
- Test questions and whole questionnaires
 - always test questions with actual respondents to find out whether the questions can be understood and answered accurately...
 - and whether respondents have a common understanding of the meaning of the questions.
- Testing can be qualitative or quantitative.
 - qualitative tests include skirmishes, focus groups, observational studies
 - quantitative testing includes pilot tests and dress rehearsals.

Thank you

- Please feel free to send me any comments on issues raised in the presentation
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