ITU Asia-Pacific ICT Indicators Workshop

Manila, Philippines
14-16 March 2018

Session 8 and 9: ICT Access and Use by Households and Individuals

ICT Data and Statistics Division
Telecommunication Development Bureau
International Telecommunication Union

Contents

- Getting ICT data through surveys

  - ✓ what to do to get the most out of it

- Overview of household ICT indicators

  - ✓ what are you going to collect

- Household ICT indicators included in the IDI 2018 (...and not forgetting the SDGs)

  - ✓ what to look out for

ITU Manual for Measuring ICT Access and Use by Households and Individuals, 2014 edition
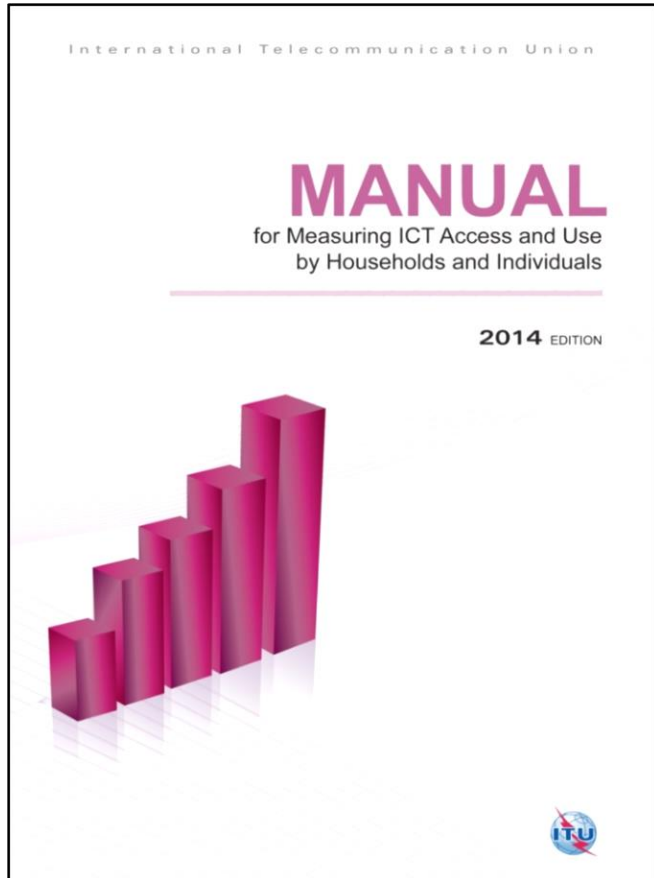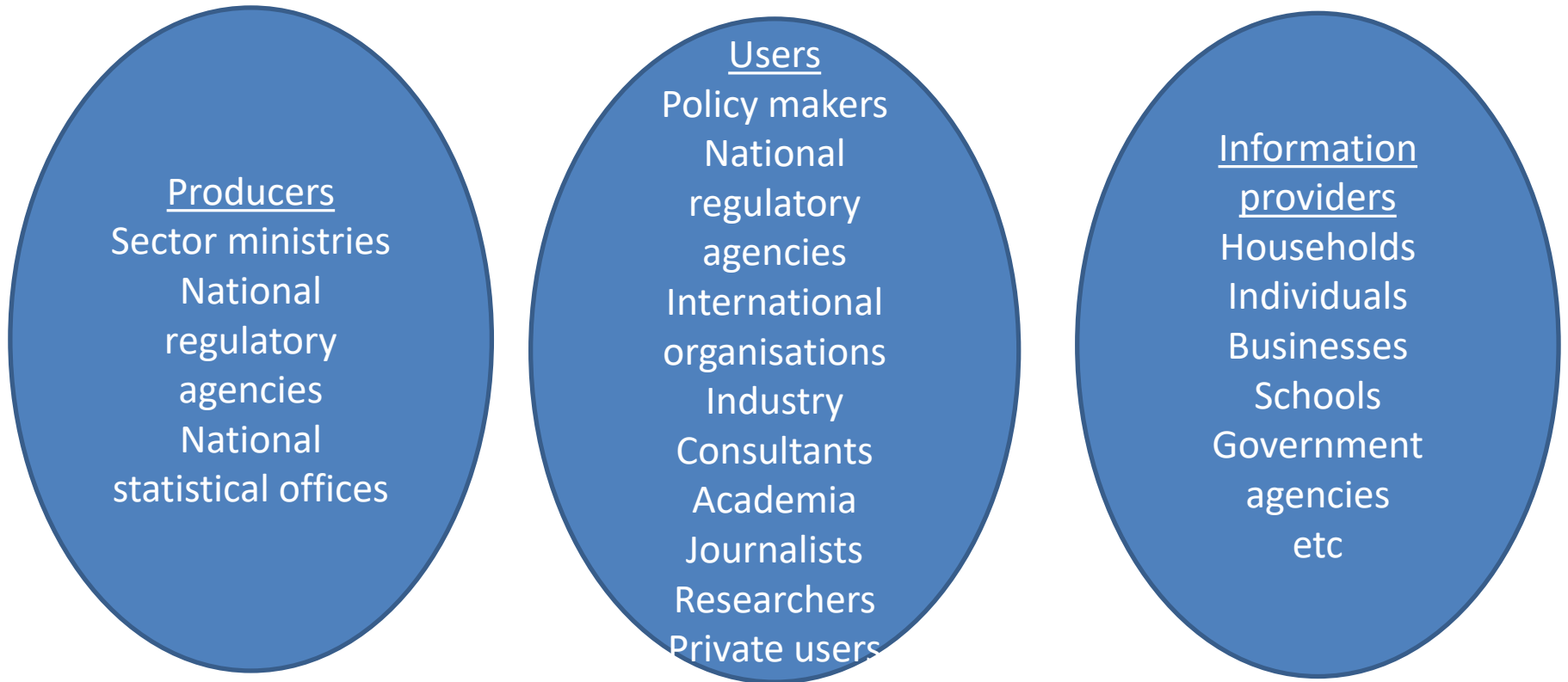
- Main objective: to assist countries to measure ICT access and use by households and individuals
  - Production of high quality and internationally comparable data

- Basis for delivery of training courses
- Includes the 2013 revised version of the core ICT household indicators
- Available online in 6 UN languages

https://www.itu.int/en/ITU-D/Statistics/Pages/publications/manual2014.aspx

Getting ICT data through surveys

Producers
Sector ministries
National regulatory agencies
National statistical offices

Users
Policy makers
National regulatory agencies
International organisations
Industry
Consultants
Academia
Journalists
Researchers
Private users

Information providers
Households
Individuals
Businesses
Schools
Government agencies
etc

Stakeholders in the ICT statistical system

Getting ICT data through surveys

- Coordination is the all-important word

Why coordinate?

- Due to the variety of existing ICT data sources, coordination and cooperation among stakeholders are fundamental to the production of high-quality official ICT statistics.

- If there is no coordination, published data may be inaccurate or inconsistent, leading to incorrect policy decisions.

Getting ICT data through surveys

Benefits of coordination

- Reduces the overall response burden for data providers, avoidance of duplication of effort and optimization of the efficient use of resources.

- It also helps to identify existing data gaps, to harmonize objectives and priorities between the different stakeholders, and to improve monitoring and evaluation of the ICT statistical production process.

Getting ICT data through surveys

Coordinating with NSOs

- Most NSOs has capacity to carry out nationwide, representative household surveys.

- NSOs have statistical infrastructure such as master sample frame for households

- NSOs access to a country-wide network of experienced interviewers, skilled staff with expertise in data treatment and analysis.

Getting ICT data through surveys

Coordinating with NSOs

- Most NSOs are also supported by legislation designed to protect data and, in many cases, to mandate provision of data, thereby enhancing response rates.

- They have the necessary technical experience in data collection and generally provide credibility of the official statistics they produce.

- In addition, like other sectoral statistics, ICT data collection could be integrated in regular household surveys, thereby ensuring sustainability of data collection.

Getting ICT data through surveys

Coordinating with users: NRAs, ministries and other agencies

- Involving them in initial stages enables buy-in from other agencies to come together and support the project

- Cost sharing in the survey's budget and resources

- Ensures ICT data gap is reduced as all agencies strive to have key indicators in the survey

Getting ICT data through surveys

Coordinating with users: NRAs, ministries and other agencies

- Collaboration also enhances the dissemination of the survey findings to wider coverage and could strengthen public relations from the data providers

- Sharing of responsibilities i.e. one organization could handle the launch of the survey while the other ensures questionnaires are printed if using hard copy or ensure software used in capturing the data is working

Getting ICT data through surveys

Coordinating with users: NRAs, ministries and other agencies

- A taskforce of team members **MUST** tackle the sample, budget, logistics, survey design in questionnaire, give overall guidance, forming of tabulations, writing report and dissemination

If I may sum up this thing called coordination, it would be …
"Talk to each other", the rest is elaboration.

Getting ICT data through surveys

Get a move on!

- Establish a subject matter working group where detailed methodological aspects of ICT statistics are discussed.

- Ensure appropriate legal framework enables collection of ICT statistics, ensures funding prospects are aligned. A memorandum of understanding between the NSO, NRAs and any other agency could be used.

Getting ICT data through surveys

Get a move on!

- NSOs could review multiyear programming of surveys to accommodate ICT questions in planned surveys or provide for the implementations of specific ICT surveys and informing NRA and other agencies. E.g. Household budget surveys, other household surveys

9. Household indicators

Overview of household ICT indicators

	Indicator	**Definition**	**Question**
HH1	Proportion of households with a radio	A radio is defined as a device capable of receiving broadcast radio signals, using common frequencies, such as FM, AM, LW and SW. A radio may be a stand-alone device, or it may be integrated with another device, such as an alarm clock, an audio player, a mobile telephone or a computer.	Does this household have a radio? Yes/No
HH2	Proportion of households with a television	A television (TV) is a device capable of receiving broadcast television signals, using popular access means such as over-the-air, cable and satellite. A television set is typically a stand-alone device, but it may also be integrated with another device, such as a computer or a mobile telephone.	Does this household have a television? Yes/No

Overview of household ICT indicators

	Indicator	Definition	Question
HH3	Proportion of households with telephone	Includes either fixed telephone or mobile telephone	For fixed telephone: Does this household have a fixed telephone line? Yes/No For mobile telephone: Does this household have a mobile telephone? Yes/No
HH4	Proportion of households with a computer	A computer refers to a desktop computer, a laptop (portable) computer or a tablet (or similar handheld computer). It does not include equipment with some embedded computing abilities, such as smart TV sets, and devices with telephony as their primary function, such as smartphones.	Does this household have a computer (desktop, laptop, tablet or similar)? Yes/No (Type of computers are split)

Overview of household ICT indicators

	Indicator	Definition	Question
HH 5	Proportion of individuals using a computer	This is the proportion of individuals who used a computer from any location in the last three months.	Have you used a computer (desktop, laptop, tablet or similar) from any location in the last three months? Yes/No
HH 6	Proportion of households with Internet	This is the proportion of households with Internet access at home. The Internet is a worldwide public computer network. Access can be via a fixed or mobile network.	Does this household have Internet? Yes/No

Overview of household ICT indicators

	Indicator	Definition	Question
HH 7	Proportion of individuals using the Internet	This is the proportion of individuals who used the Internet from any location in the last three months.	Have you used the Internet from any location in the last three months? Yes/No
HH 8	Proportion of individuals using the Internet, by location	This is the proportion of individuals who used the Internet from specified locations in the last three months.	Where did you use the Internet in the last three months? Respondents should select all locations

Overview of household ICT indicators

	Indicator	Definition	Question
HH9	Proportion of individuals using the Internet, by type of activity	This is the proportion of individuals who undertook one or more activities using the Internet for private (defined as non-work) purposes from any location in the last three months.	For which of the following activities did you use the Internet for private purposes (from any location) in the last three months?'

Overview of household ICT indicators

	Indicator	Definition	Question
HH10	Proportion of individuals using a mobile cellular telephone	This is the proportion of individuals who used a mobile telephone in the last three months. A mobile (cellular) telephone refers to a portable telephone subscribing to a public mobile telephone service using cellular technology, which provides access to the PSTN. This includes analogue and digital cellular systems and technologies such as IMT-2000 (3G) and IMT-Advanced. Users of both postpaid subscriptions and prepaid accounts are included.	Have you used a mobile telephone in the last three months? Yes/No

Overview of household ICT indicators

	Indicator	Definition	Question
HH 11	Proportion of households with Internet, by type of service	This is the proportion of households with access to the Internet, by type of service.	What type/s of Internet services are used for Internet access at home?
HH 12	Proportion of individuals using the Internet, by frequency	This is the frequency of Internet use by individuals who used the Internet from any location in the last three months. Frequency: At least once a day, at least once a week but not everyday , less than once a week	How often did you typically use the Internet during the last three months (from any location)?

Overview of household ICT indicators

	Indicator	Definition	Question
HH 13	Proportion of households with multichannel television, by type	This is the proportion of households with multichannel television (TV) and by type of multichannel service.	Does this household have any of the following television services?
HH 14	Barriers to household Internet access	This measures the barriers to Internet access for households without Internet access. It is expressed as a proportion of households without Internet access.	Why does this household not have Internet access?
HH 15	Individuals with ICT skills, by type of skills	This refers to ICT skills, defined for the purpose of this indicator as having undertaken certain computer-related activities in the last three months.	Which of the following computer-related activities have you carried out in the last three months?

Overview of household ICT indicators

	Indicator	Definition	Question
HH 16	Household expenditure on ICT	This measures the percentage of total household expenditure that is expended on ICT goods and services	As this indicator will usually be derived from household budget survey, no model question is proposed.
HH 17	Proportion of individuals using the Internet, by type of portable device and network used to access the Internet	This is the proportion of individuals who used the Internet using a portable device. A portable device can be a mobile phone, tablet or a portable computer (such as laptop, notebook, netbook). The network used to access the Internet can be either via mobile cellular network or via other wireless networks (e.g. WiFi).	How did you access internet? Options: Mobile phone (mobile network/ wifi), Tablet (mobile network/ wifi),Portable computer (laptop, notebook, netbook) (mobile network/ wifi), other portable devices

Overview of household ICT indicators

	Indicator	Definition	Question
HH 18	Proportion of individuals who own a mobile phone	This is the proportion of individuals who own a mobile phone. An individual owns a mobile cellular phone if he/she has a mobile cellular phone device with at least one active SIM card for personal use. It includes mobile cellular phones supplied by employers that can be used for personal reasons (to make personal calls, access the Internet, etc.) and those who have a mobile phone for personal use that is not registered under his/her name. It excludes individuals who have only active SIM card(s) and not a mobile phone device.	Do you have a mobile phone? Yes/No
HH 19	Proportion of individuals not using the Internet, by type of reason	This measures the barriers to Internet use by individuals. It is expressed as a proportion of individuals who do not use the Internet.	Why don't you use internet?

HH 17, HH 18 and HH 19

HH 17 Proportion of individuals using the Internet, by type of portable device and network used to access the Internet

HH 18 Proportion of individuals who own a mobile phone

HH 19 Proportion of individuals not using the Internet, by type of reason

- **Please do not just add them to the end of the model questionnaire.**

- Position them logically in consonance with good practices in questionnaire design. Eg HH 17 could be transformed into one or more related questions to elicit the right response for calculating the required indicator and placed after question 20

New indicator: E-commerce
EGH 2017

1. Type of goods and services purchased online

2. Payment channels for online purchases

3. Reasons for not purchasing online

4. Method of delivery

New indicator: Smartphone
EGH 2017

Definition of smartphone:

A mobile handset that is used as the person's primary phone device which has smart capabilities, including Internet-based services, and performs many of the functions of a computer, including having an operating system capable of downloading and running applications, also those created by third-party developers.

Smartphone

To add as new sub-category for the ff indicators:

- HH3: Proportion of households with telephone

- HH10: Proportion of individuals using a mobile cellular telephone; and

- HH18: Proportion of individuals who own a mobile phone.

Disaggregating the data by socio-demographics: why and how

- Important to policy makers

- Disaggregation shows socio-economic problems that create barriers to use of ICT by individuals. These problems are diverse and broadly cover lack of opportunity and lack of ability. They include illiteracy and other linguistic limitations, socio-cultural barriers, lack of ICT and other skills, lack of confidence or awareness and low income.

- Gives more information i.e. who is using the ICTs i.e. male/ female, age, location (urban/ rural) etc

Individual characteristics

Sex:

- Sex disaggregation of data is a fundamental requirement for gender statistics and in particular for the analysis of the gender gap in the use of ICT. A MUST HAVE FOR ALL CORE INDICATORS

Age:

- Age is a strong determinant of ICT use so a common age cut-off and categories are important

- Recommended ranges: under 5; 5–9; 10–14; 15–24; 25–34; 35–44; 45–54; 55–64; 65–74 and 75 and over

Individual characteristics

Education levels:

For international comparisons, countries required to classify education as International Standards Classification of Education follows:

- primary education or lower (ISCED levels 0, 1),
- lower secondary education (ISCED level 2),
- upper secondary education or post-secondary non-tertiary education (ISCED
- levels 3,4),
- tertiary education (ISCED levels 5, 6), and
- post-tertiary education (ISCED levels 7, 8).

Individual characteristics

Labour Force:

Based on the International Labour Organization (ILO) International Classification of Status in Employment (ICSE-93), with additional categories for those who are unemployed or outside the labour force.

- Employee;
- Self-employed (includes the four categories: employers, own-account workers, members of producers' cooperatives, and contributing family workers);
- Workers not classifiable by status (for whom insufficient relevant information is available, and/or who cannot be included in the preceding categories);
- Unemployed; and
- Outside the labour force. i.e student, retired.

Further classification may be given as per occupation.

Individual characteristics

Disability status: **(Discussed at EGH forum)**

Because of a Health problem:

- 1) Do you have difficulty seeing even if wearing glasses?

- 2) Do you have difficulty hearing even if using a hearing aid?

- 3) Do you have difficulty walking or climbing stairs?

- 4) Do you have difficulty remembering or concentrating?

- 5) Do you have difficulty with (self-care such as) washing all

- over or dressing?

- 6) Using your usual language, do you have difficulty communicating (for example understanding or being understood by others)?

- **Response categories:**

- No difficulty; Some difficulty; A lot of difficulty; Cannot do at all

Individual characteristics

•Other classifications at individual level are: level of literacy, ethnicity, languages spoken, language skills.

•The revised ICT household indicators include HH15, *Individuals with ICT skills, by type of skills. It will therefore be possible to cross-classify the individual use* indicators by ICT skill level.

Household Characteristic

- Household composition (*households with children under 15 and households without children under 15).* Household composition is relevant to measuring the digital divide in households with children.

- Household size (number of household members, including those outside any age scope imposed).

- Geographical disaggregation such as urban/ rural. Countries use their own definition for the urban/ rural and include it in the metadata. Countries can disaggregate this to towns, districts, counties to match their local needs.

- Household with electricity can be used especially for the household ICT access indicators

- Household income

Cross-classification of data

Can produce information that is very useful for analytical purposes as is more detailed

• example: Internet use by young women (data are cross-classified by age and gender).

ITU proposes the following cross-classification:

• household composition by rural/urban,

• rural/urban by sex,

• age by sex,

• educational attainment by sex,

• status in the labour force by sex, and

• occupation by sex.

Quiz

- List social demographics used to disaggregate the ICT household indicators

- Propose indicators to be discussed as future work for the EGH group

- For HH17, 18 and 19, compose question(s) to collect the required data

- Where would you place the questions for HH17, 18 and 19 in the model questionnaire?

  Note: Model questionnaire is on page 154 of this ITU manual

Thank you

For more information
http://www.itu.int/ict
and
indicators@itu.int

HH16 Household expenditure on ICT

Definition:

Percentage of total household expenditure that is expended on ICT goods and services

Methodological issues: goods and services are defined on the basis of the COICOP classification

Telephone and telefax equipment (COICOP 08.2.0)
Telephone and telefax services (COICOP 08.3.0)
Equipment for the reception, recording and reproduction of sound and picture (COICOP 09.1.1)
Information processing equipment (COICOP 09.1.3)
Repair of audio-visual, photographic and information processing equipment (COICOP 09.1.5)

Source: Household Income and Expenditure Surveys   [Back]